An Analysis
OF
FIFTY CASES OF VALVULAR DISEASE OF THE HEART, WITH REMARKS.[1]

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As a basis for the discussion which is to follow I shall begin by giving a short analysis of fifty cases of valvular disease of the heart occurring in my practice within the last few years. The cases have not been in any way specially selected and may be taken as fairly typical examples of the disease in question. I should perhaps remark that the series consists almost exclusively of adult cases.

Seat of lesion.—In no less than thirty-three out of the fifty cases the only lesion that could be definitely made out was mitral regurgitation. This confirms what is, I think, the general experience, that this is much the commonest form of valvular defect. We must, however, bear in mind the well-known fact that it is common at post-mortem examinations to find lesions of the aortic valves which had escaped recognition during life. If we looked at clinical evidence only we should probably overestimate the relative frequency of mitral lesions. My cases do not happen to include a single instance of pure mitral obstruction, and I must express my opinion that this is a somewhat rare form of valvular defect. It is commoner in children than in adults and in the female than in the male sex. Only one case of combined mitral obstruction and regurgitation is included in my cases, although this has been in my experience a commoner defect than pure mitral obstruction. In 13 out of the 50 cases both aortic and mitral valves were affected, the most usual condition being the association of aortic regurgitation with mitral regurgitation. I am disposed to think that in most of the cases of combined aortic and mitral regurgitation the aortic lesion was primary and the mitral secondary. In only 2 of my cases was there pure aortic regurgitation without (sooner or later) mitral involvement, and in only 1 was there coexisting aortic obstruction and regurgitation without mitral defect. I have no records in my present series of any case of pure aortic obstruction; and I believe this, like the corresponding lesion of the mitral valve, to be a somewhat rare affection. My cases would then, so far as they go, seem to warrant the following conclusions regarding the relative frequency of the different valvular lesions—(1) That pure mitral regurgitation is much the commonest of all; (2) that next in order follow aortic lesions combined with mitral regurgitation; (3) that pure obstruction, either at the mitral or aortic orifice (at least sufficient to cause symptoms and afford adequate grounds for diagnosis) is a somewhat rare condition.

Age.—I find that of the 50 cases 27 had attained the age of thirty or upwards, while 23 were under that limit. On inquiring into the influence of age upon the relative frequency of the various lesions I find some interesting results. Thus the average age of 33 patients with pure mitral disease was found to be twenty-nine, while the average age of 14 patients in whom the aortic valves were affected either with or without mitral disease was found to be forty-one. This is a decided contrast, and illustrates the well-known rule that mitral disease falls rather on the earlier years of life and that aortic lesions become more frequent with advancing age. This law is explained by the fact that mitral lesions are usually the result of endocarditis, while aortic lesions are often the consequence of atheroma or other degenerative change in the walls of the arteries.

Sex.—I find that 26 of my 50 cases were males and 24 females, which would seem to indicate that sex has little influence in predisposing to valvular lesion of the heart. This is in striking contrast to the facts regarding aneurysm, which, as is so well known, occurs with greatly preponderating frequency in the male sex.

Etiology.—My cases bring out strongly what is the most familiar fact in connexion with the etiology of valvular lesions of the heart—viz., the great part played by rheumatism.

In 27 out of the 50 cases there was a clear rheumatic history. In 5 of the cases rheumatism was associated with scarlet fever. In 23 cases no history of rheumatism could be made out. I have sifted this series of cases as carefully as possible regarding the pathological conditions either antecedent to or associated with the valvular lesion with the following results. Two cases were probably congenital, and may therefore be dismissed. In 6 cases hard drinking was acknowledged. Syphilis was present in 4 cases. Chronic bronchitis was likewise present in 4 cases. Bright's disease was also found in 4 cases. In 2 cases remittent fever had existed, and in most of the remaining cases no trustworthy data were available. These figures would seem to indicate that (as is universally admitted) rheumatism is by far the most potent factor in the causation of valvular cardiac lesions, and that next follow (but at a great distance) drink, syphilis and renal disease. In a very large number of cases the important element of muscular strain was present, but I have found it impossible to separate this from the other conditions enumerated. As regards the rheumatic cases, my records seem to show that the heart often withstands the first attack of rheumatism, sometimes a second, but that it inevitably gives way when there is a series of such attacks. I have not been able to make out to my satisfaction the probable duration of the cardiac lesions before the cases came under observation. One case had apparently lasted ten years, another five years, but in most cases there were no adequate data for determining the point. As regards the results of treatment, 15 cases died and the remaining 35 improved. In 17 cases the improvement was noted as slight or fair, and in 18 cases as marked and decided. Of the 15 fatal cases 9 were cases of mitral regurgitation, 2 were cases of pure aortic regurgitation, and 3 were cases of combined aortic and mitral disease.

I now wish to invite the attention of the Ulster Medical Society to a few general problems of prognosis in the class of affections under consideration. First, what is the relative gravity of the four principal valvular lesions of the heart? We may answer, I think with confidence that pure aortic obstruction is the least serious, pure aortic regurgitation the most serious, and that affections of the mitral valve are intermediate. Opinions have differed much regarding the relative gravity of mitral obstruction and mitral regurgitation. On the whole I incline to the view of Drs. Bristowe, Wilks, Peacock and Sansom that the prognosis is somewhat more favourable in obstruction, as it has seemed to me that compensation is better maintained in this lesion than in regurgitation. I would point out, however, that, as the majority of the cases of mitral obstruction which come under observation are found either in children or women, whereas mitral regurgitation is common in both sexes and at all ages, the comparison is hardly a fair or an instructive one.

I pass on to consider a much more arduous problem. Given a case of, say, mitral regurgitation, can we determine with any approach to accuracy the probable duration of life? It is now quite certain that these cases may live for ten, twenty, thirty, or forty years, so that in fact their serious defect may not shorten life at all; or, on the other hand, they may hardly live so many weeks or days. It becomes a most interesting and vitally important question to determine how far we can draw the line between the two classes of cases. Perhaps I shall best solve the problem that I have propounded by giving the substance of the teaching of Sir Andrew Clark, Professor Gairdner, Dr. Clifford Allbutt and others who have defined for us with considerable precision the cases of mitral regurgitation which may be reasonably expected to survive for many years. Sir Andrew Clark enumerates the following conditions as enabling us to speak favourably of the prospects of life in such cases:—(*a*) General good health; (*b*) just habits of living; (*c*) no exceptional liability to rheumatic or catarrhal affections; (*d*) origin of the valvular lesion independent of degeneration; (*e*) existence of the valvular lesion without change for over three years; (*f*) sound ventricles of moderate frequency and general regularity in action; (*g*) sound arteries with a normal amount of blood and tension in the smaller vessels; (*h*) free course of blood through the cervical veins; (*i*) freedom from pulmonary, hepatic and renal congestion.

I need hardly point out that the cases of mitral regurgitation presenting all these conditions are very exceptional

[1] An introduction to a discussion on Chronic Valvular Disease of the Heart at the Ulster Medical Society.

indeed; but they do occur sometimes, and it is most important that we should be able to recognise them. One of the conditions—viz., that the lesion shall have existed without change for over three years—is obviously a point very difficult of determination, and impossible to establish on a first examination. Hence, it is only after we have had a case of this kind for some time under observation that we are justified in speaking hopefully of the prospect of life. There is one class of case that calls for care and discrimination as regards prognosis. I mean where we have some regurgitation through the mitral valve as the result of sudden dilatation of the left ventricle and independent of actual structural damage to the valve. Some years ago a gentleman consulted me under the following circumstances. He had enjoyed good health until a few days previously, and had never had rheumatism. A few days before his visit to me he had undergone severe and unusual physical strain and had been seized with sudden and severe dyspnœa, which continued up to the time of my examination. I found the heart acting violently, but there was no evidence of hypertrophy. Auscultation revealed a loud bellows murmur at the apex and heard over a wide area. There was no pulmonary congestion, dropsy, or other evidence of systemic engorgement, and the only symptom complained of was the dyspnœa. I formed the opinion that in all probability the case was one of acute dilatation of the left ventricle from overstrain, and that while the prognosis was not free from anxiety, the prospects of recovery were good. I accordingly spoke encouragingly; ordered complete rest and tonics. The case rapidly improved, and in a short time all the troublesome symptoms had disappeared. I have not seen the patient for some time, but have lately heard that now, at the expiration of several years, he remains perfectly well. We must remember that all cases of acute dilatation of the left ventricle do not pursue this favourable course. Sometimes dropsy and the other signs of cardiac failure rapidly supervene and the patient dies, but the prognosis is essentially different from that of organic valvular disease. The particularly loud murmur present in this case leads me to remark that there is no greater error in dealing with cardiac disease than to regard a loud murmur as necessarily indicating a serious lesion. As a matter of fact the rule is rather the other way. In regurgitant mitral disease the loudest murmurs are produced by a small amount of blood being strongly forced through the valve by a vigorously contracting ventricle. The worst sign of all is where a loud murmur gradually becomes feebler and eventually disappears owing to failing contractile power of the ventricle. A murmur may, of course, also become feebler owing to increasing competence of the valve. The clinical signs will serve to differentiate the two cases.

There seems no doubt that occasionally, though rarely, organic valvular disease may entirely disappear. The best observers are agreed upon this point. There is no doubt whatever that the cardiac murmurs often present in chorea pretty frequently disappear, and everything seems to point to the conclusion that these murmurs are organic and not functional. The topic of prognosis in valvular affections naturally suggests the question whether any of the subjects of this affection may be fitly passed for life insurance at some increased premium. Most offices refuse positively to accept any applicant who has any form of cardiac disease; but this is not an absolutely universal rule and the point may arise with any of us. Sir Andrew Clark and Dr. Clifford Allbutt are both of opinion that certain cases in the class under consideration may be safely selected for insurance at some heavy increase of premium. The cases recommended for such a course are such as those previously described as affording grounds for a hopeful prognosis. Cases of mitral regurgitation, which have remained *in statu quo* for several years, where there is no change in the ventricle, no accentuation of the pulmonic second sound, no evidence of embarrassed circulation, and no subjective symptoms, are suggested as fair subjects for insurance at certain rates. Dr. Clifford Allbutt advises that such cases, if accepted, should be put upon the early payment system, so that all the premiums should be paid by the age of thirty or thirty-five. I confess I should hardly feel at liberty at present to recommend for insurance any applicant who presented the signs of organic valvular disease of the heart, though I have little doubt that there will, in the early future, be such an advance in precision of prognosis as to permit of this being done in a manner equitable alike to applicants and to the insurance companies.

ON FREE FLUID IN THE ABDOMINAL CAVITY OF THE FEMALE.

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IN the majority of cases the fluid which is found free in the abdominal cavity resembles the normal transudations of the body. Occasionally, however, it differs from dilute liquor sanguinis as it may be poured out by the rupturing of some cyst or abscess or the bursting of one or more blood-vessels. From the peritoneal sac of a well-fed animal, especially after the ingestion of a good meal, one is able to collect a quantity of serous fluid. Under ordinary circumstances, however, the arterial and venous pressures are so regulated that this liquid does accumulate, but forthwith it finds its way again into the blood through the lymphatics. When therefore dropsy of the peritoneum occurs we may practically consider it as resulting in consequence of some derangement of a physiological phenomenon. The capillary system we know is the seat of the phenomena of nutrition, absorption and secretion, and it is to this system we must look for an explanation of the manner in which dropsy of the peritoneum takes place. If in a healthy animal we ligature the principal vein of a limb it does not follow that by thus interfering with the return of blood we shall produce œdema of this extremity. When, however, we cut the vaso-motor nerves the interstitial meshes of the area so disturbed are forthwith more or less markedly infiltrated by a serous exudation. In this case we destroy that tone of the vessels which is so essential for the maintenance of those physico-vital processes which are for ever going on, and by so doing we favour not only the transudation of serum, but interfere with the rate of absorption. Dropsy of the peritoneum very frequently depends upon inflammatory disease of the kidneys or upon organic disease of the lungs or heart. In this group of cases it is but a portion of a general dropsy, as the universal areolar tissue is similarly infiltrated. It is not my intention to deal at present with this form of ascites, but with that which, generally speaking, is not attended with anasarca elsewhere. The following are a few cases selected from a considerable number belonging to this category which have come under my own observation.

CASE 1.—*Free fluid in the abdominal cavity in association with fibroid induration of the stomach and general fibroid thickening of the peritoneum.*—A. L——, aged thirty-five and married twelve years, had one child ten years ago. Menstruation, established at the age of twelve, has usually lasted five days. She was last unwell fourteen days before coming under my care on Oct. 20th, 1888. Since Oct. 1887—i.e., for twelve months—the patient has complained more or less constantly of a "grumbling pain" in the abdomen. This pain has never been severe. During this same period she has also complained of sickness. At first she vomited only occasionally, but latterly she has been sick at least once every day. Sometimes she has experienced severe stabbing pain in the region of the stomach, especially after the ingestion of food. About July, 1888, she remarked that her abdomen was increasing in size, and since then it has gradually become more and more prominent. There is nothing to note about the bladder except that the patient states she has always had to micturate frequently. During the last three weeks the bowels have been opened two or three times a day. Throughout this illness the menstrual discharge has recurred regularly every four weeks, and there has been no variation as to amount. The patient thinks she has gradually been losing flesh during the last two years.

Physical signs.—The abdomen is prominent, but not tense; it is tender all over to the touch, and dull to percussion to midway between the pubes and umbilicus; this dulness extends into the right flank, whilst the left is resonant; the dulness on the right side is not affected by altering the position of the patient; fluctuation is readily elicited. The vaginal examination revealed nothing of note in the pelvis.

From the date on which this patient came under my observation—viz., Oct. 20th, 1888—until April 3rd, 1889, when she died, the stomach emptied itself of its contents once or oftener every day. During this period she was tapped twice. The first tapping was performed on Dec. 28th, when a gallon and a half of straw-coloured serum was drawn off; at the second tapping, on Jan. 5th, one gallon only was removed. The temperature throughout was practically normal.

Necropsy.—On opening the abdomen a large amount of straw-coloured serum escaped, and with it flakes of lymph. The large bowel in its whole extent was enormously distended, whilst the small intestines were firmly matted together. The omentum, which was spread out like an apron, was firmly adherent to the pubes. The serous covering of the liver was much thickened. The stomach was so contracted that its capacity was only equal to about three fluid ounces. Its wall, which was uniformly thickened, measured five-eighths of an inch in thickness. The pyloric orifice was so constricted that it must have been difficult for even fluid to pass through it. The pelvic peritoneum was so much thickened that it was impossible to recognise the ovaries as such. In both chests the parietal and visceral pleuræ were firmly and universally adherent. The microscopic examination of sections of the stomach revealed only a very great excess of fibrous tissue.

This case is one of very great interest. The serous membrane of the chest as well as of the abdomen was so universally the seat of change, and the stomach itself was likewise so extensively invaded by fibrous tissue, that I am inclined to attribute these changes to some disturbance of the sympathetic nerve, and this disturbance was most probably of the nature of sclerosis. If in an animal we cut out certain ganglia of the sympathetic violent inflammation of the peritoneum and pleura is exceedingly apt to follow. Unfortunately the sympathetic was not examined in the above case, as the idea that the whole train of events might probably have been due to change in this system did not suggest itself to me until some days after the necropsy. On studying carefully the results obtained by experimenting upon the sympathetic I am firmly of opinion that had it been examined some very decided structural change would have been detected. This hypothesis is sustained, too, by the clinical facts. For twelve months prior to coming under my care she had complained more or less constantly of a "grumbling pain" in the abdomen, and occasionally of severe stabbing pain referred to the epigastric region. About the same time she noted a proneness to sickness. For three months she had observed that the stomach had been gradually increasing in size. To what, then, I ask, may the dropsy of the peritoneum be attributed? In consequence of the change in the stomach the patient was gradually being starved, and yet a fair quantity of serous fluid was passing out of the vessels into the abdominal cavity. When the peritoneum is opened in the case of animals which have been starved very little fluid is found in this sac; it is, in fact, dry. The change in the texture of the peritoneum would undoubtedly interfere with the process of absorption, for the lymphatic orifices and channels would be more or less completely closed and obliterated, and direct absorption would also be interfered with, for in order that this may proceed the fluid should be in as immediate contact with the capillary vessels as possible. The structural change in the peritoneum did not, however, interrupt the transudation of serum—in fact, the fluid passed out more abundantly than it ought to have done. Now, it is hardly likely that the increased exudation was due solely to the structural state of the peritoneum, although it may have been aided by the change, whereas it probably was due to some disturbance of the vaso-motor nerves.

CASE 2. *Dropsy of the peritoneum in association with malignant disease of the omentum.*—E. N——, aged fifty-three, a widow, had one child twenty-eight years ago. She has never had any miscarriages, and she ceased menstruating seven years since. During the last twelve months the patient has remarked that her abdomen has been gradually increasing in size, and for four months she has complained more or less of pain all over the abdomen. There is no bladder or rectal trouble, neither has there been any swelling of the feet or legs.

Physical signs. — The abdomen is prominent but not tense. It is dull to percussion everywhere except in the epigastric area. The dulness in the left flank is not affected by the position of the patient, whereas the right flank becomes resonant as she lies on her left side. Fluctuation is readily elicited. On palpation there is no evidence of the existence of a new growth in the abdomen. The vaginal examination reveals nothing of note. An exploratory incision was advised and made. On opening the abdominal cavity a large quantity of deep amber-coloured fluid escaped. There were no flakes of lymph. The omentum was converted into a nodulated malignant mass and here and there secondary nodules were observed in the peritoneum.

What is the cause of ascites in cases of this description? Extensive degeneration of the peritoneum is said to be a cause of dropsy of the abdominal cavity. In the case which I have just recorded and in the majority of cases of malignant disease of the omentum effusion of serum takes place usually at a very early stage, and before the peritoneum has become extensively diseased. In the late stage, when the serous membrane is studded with malignant growth, œdema of the lower extremities is almost invariably noted. This anasarca of the limbs, it would appear, is to some extent the result of pressure, since one leg is usually markedly œdematous before the other. It is probably also determined by the general constitutional enfeeblement of the patient. In those cases in which the growth is malignant the serous exudation goes on steadily increasing and accumulating, whereas when the growth is of a benign character there is sometimes a lull; and patients often tell us that on one or two occasions the abdomen has diminished in size and has even, in fact, returned to its natural size. These diminutions are due to an actual decrease in the amount of the fluid and are not to be considered as resulting simply from an alteration in the state of the intestines. There is in reality a lessened transudation and an increased absorption of liquid. Transudation of serum takes place more profusely from the peritoneum covering a malignant than a simple growth, and the blood state induced by the presence of a malignant growth favours not only the exudation of serum, but hinders endosmosis.

CASE 3. *Fluid in the peritoneum in association with a deposition of tubercle in this membrane; recovery under treatment.*—On May 20th, 1891, Mr. Harley of Rainham, Essex, consulted me regarding E. L——, aged eighteen, a single woman. The patient began menstruating at the age of thirteen, and the discharge had usually lasted three days. For five months prior to coming under my observation there had been a total suppression of the catamenial discharge. About the same time—i.e., five months ago—the patient remarked that the abdomen was large, and it has gradually become more and more prominent. During this same period she has occasionally complained of pain in the abdomen and back. Three months since there was œdema of the left foot and leg, but this passed away in a couple of weeks. She has not lost flesh, neither has she complained of bladder nor rectal trouble.

Physical signs.—The abdomen is prominent and tense. The percussion note is dull from the pubes to two inches above the umbilicus, and the area of dulness extends laterally on each side to a line drawn vertically from the anterior superior spine of the ilium. Both flanks are resonant. Fluctuation is readily elicited. On palpation a small nodule is detected on the left side, a little above the anterior superior spine of the ilium and midway between it and the linea alba. At the upper limit of dulness and on the left side is felt a more solid body, which appears to be intestines matted together. Vaginal examination: The uterus is low in the pelvis. The os looks downwards, and the body is felt anteriorly and on the right side, lying on the pelvic floor. Fluctuation is conveyed from the abdomen to Douglas's pouch. The bladder was emptied by the catheter, one ounce of urine being drawn off. The temperature was 100·6° F. Under treatment the abdominal swelling gradually disappeared, and on March 6th, 1892, Mr. Harley informed me that this patient was practically well. Since August she had menstruated regularly every month and lost as usual. "But," he added, "for three weeks now there has been a small amount of bloody discharge every day." I have seen cases similar in many respects to this one recover not only under general treatment, but also after the removal of the ascitic fluid by abdominal section. Sometimes the peritoneum has even been studded with what appeared to be miliary tubercle, and yet the fluid did not reaccumulate. A few of the cases, in fact, appeared to be perfectly well when seen twelve and eighteen months after the abdominal exploration.

What is the cause of the dropsy of the peritoneum in cases of this class? If the change in the serous membrane is the cause of the excessive transudation of fluid in these cases, and the deposition of tubercle in the lymphatics the probable cause of the interference with absorption, it is difficult to understand how the fluid disappears in some cases under treatment and does not reaccumulate in others after abdominal section. Under the latter circumstance it is not even necessary to drain the abdominal cavity after the completion of the operation. In some cases of tubercular peritonitis there is œdema of both lower extremities as well as dropsy of the abdominal cavity, and the amount of effusion is ap-

parently regulated by the general condition of the patient. I am therefore of opinion that the transudation in cases of this group is due to an alteration in the composition of the blood, and that the effusion takes place first and most markedly into the meshes of that tissue which is the seat of irritation. To some extent it is determined and regulated by a disturbance in the relationship of the arterial and venous pressures. In many cases of tubercle improvement in the state of the constitution does take place, and this may account for the disappearance occasionally of the fluid from the abdominal cavity under general treatment and for the non-accumulation after evacuation by abdominal section. In cases of malignant disease of the peritoneum we cannot hope for absorption or arrest of secretion, for the blood dyscrasia steadily progresses and the constitution of the patient is gradually undermined.

CASE 4. *Fluid in the peritoneum in association with papilloma of the ovaries, tubes and pelvic peritoneum generally; no evidence of cystic change; papilloma rather adenomatous than malignant in character.*—H——, aged thirty and married eleven years, has had two children, but no miscarriages. The last child was born nine years ago. Menstruation established at the age of fourteen; has usually lasted five days. The discharge recurs regularly every month, and is neither altered in amount nor character. She was last unwell fourteen days ago (Aug. 23rd, 1891). For three months the patient has remarked that the abdomen has gradually increased in size. At no time has she complained of pain.

Physical signs.—The abdomen is prominent but flaccid. The percussion note over the greater part of the anterior surface of the abdomen is resonant. Both flanks are dull. The right flank becomes resonant when patient turns on to her left side, whilst the note in the left flank is not altered by position. Vaginal examination: The uterus, which is fairly central (mesially) is pushed rather towards the pubes. It is surrounded by free fluid. On the right side is felt a small tender swelling, probably the ovary. On the left side is felt only some ill-defined thickening. For five months I kept this patient under observation, and during this time I failed to detect any evidence of material change in the abdominal state. Important changes, however, were noted in the pelvis; the small swelling which I had at first noted to the right of the uterus had gradually increased in size and become more irregular, and other nodules of varying size were also detected in the neighbourhood of this the first swelling. The thickening noted to the left of the uterus had not apparently altered. Abdominal exploration was now advised and was performed. On opening the abdomen a large quantity of deep-amber-coloured serum escaped. The omentum was occupied by what at first sight appeared to be a few flaccid cysts; on closer inspection, however, these swellings proved to be simply localised exudations of serum between the folds of the omentum. In the pelvis, and apparently springing from the right ovary, was found a papillomatous mass about the size of a turkey's egg. This mass, which was extremely friable and very vascular, was removed. On the left side a similar but more sessile mass was also found, but this could not be removed. The pelvic peritoneum was studded with small nodules of a similar character. The ovaries and tubes, as such, were not detected. The abdominal peritoneum was apparently unaffected.

In this case the disease was confined to the pelvic peritoneum; and I am of opinion that an increased transudation of serum took place from these highly vascular papillomatous growths, and that there being no compensatory increase in absorption, but possibly rather an interference with this process in consequence of the condition of the patient, the liquid accumulated and produced dropsy of the peritoneum.

CASE 5. *Fluid in the peritoneum in association with cystic and malignant disease of both ovaries and malignant disease of the omentum; necropsy.*—H. H——, aged forty-eight, a single woman, ceased menstruating twelve months ago. Four months ago—in July, 1891—the patient began to complain of general soreness in the abdomen and, at the same time, accidentally she detected a small lump in the lower abdomen on the right side. The abdominal discomfort was aggravated by any exertion. Since July the abdomen has gradually become more and more prominent, and she has lost flesh. Seven years ago the patient says she had an illness similar to the present one and that she then as now complained of soreness in the abdomen and also detected a swelling on the right side. The swelling, however, she alleges, disappeared after three or four months' time, and she considered herself well till the occurrence of the present illness.

Physical signs.—The abdomen is so greatly distended that the skin is tense and glossy. The percussion note over the lower part of the abdomen from the pubes to the umbilicus is absolutely dull and this dulness extends towards both flanks. The left flank is dull whilst the extreme right is resonant. The upper limit of the dulness is somewhat concave in outline. Obscure fluctuation is detected over the area of dulness. Chest: Both chests below the level of the scapula are dull to percussion, and clear serum was drawn off from the right by an exploring syringe. Vagina: The vaginal roof is occupied by a hard swelling, which projects somewhat posteriorly. The cervix is pushed forwards and to the right. The body of the uterus appears to be embedded in a pelvic mass. On passing the catheter it strikes against a hard body.

There was no œdema of the legs until the patient had been under observation seven days. On Nov. 3rd, 1891 (about a month after the patient had been in hospital), I inserted a small trocar at a spot midway between the pubes and umbilicus, but I only drew off fifty-two ounces of a dark greenish fluid. The specific gravity of this fluid was 1020, it contained peptone and became solid on boiling, its reaction was alkaline. The withdrawal of this fluid afforded no relief, and the abdominal tension was unaltered by the tapping. On Nov. 27th she died.

Necropsy.—The pericardium and heart were normal. Both pleural cavities contained a quantity of fluid, that in the right was clear whilst that in the left was deeply blood stained. A few small white nodules of growth were observed in the lungs. These were situated immediately under the pleura and were flattened. A large quantity of ordinary ascitic fluid escaped on opening the abdominal cavity. The peritoneum, which was much thickened, was studded with malignant nodules of small size. The omentum was a malignant mass. The liver, spleen and kidneys were normal. The uterus contained several fibroid growths, two of which were calcareous. It was adherent to the bladder and to two large cysts. One cyst arose from the right horn of the uterus and reached the umbilical level. It passed in front of the uterus somewhat and occupied a central position. It did not invade the pelvis. It contained a greenish fluid, and it was evident that this was the cyst which I had tapped during life. It was unilocular, and at its base were found cancerous-looking nodules. Passing from the left side behind the uterus and filling the whole pelvis was another cyst, smaller, but also unilocular and exhibiting cancerous nodules at its base. This cyst had pushed the uterus towards the right wall of the pelvis.

The diagnosis in this case was extremely difficult, although the physical signs indicated the existence of some malignant change. The history tended to mislead. The patient affirmed that seven years previously she had suffered in a very similar manner, and that then a tumour was detected on the right side, but which soon afterwards disappeared. It is impossible to say what may have been the nature of this swelling, although it is more than probable that it was not an ovarian cyst. The fluid drawn from the right pleural cavity being ordinary serum did not help us in deciding the cause, whereas if the left chest had been explored and hæmorrhagic fluid had been drawn off, the presumption would have been strongly in favour of malignant changes. The fluid drawn from the abdominal cavity did not even allow of a more complete examination, but merely informed us that we had tapped a cystic accumulation. It was impossible to draw off the ascitic fluid, as the area of dulness was so limited and the distension of the abdomen so great.

CASE 6. *Fluid in the peritoneum in association with a multilocular ovarian cyst with no adhesions, but with evidence here and there of degenerate change in the cyst wall in consequence of a partial twist of the pedicle.*—M. M——, aged fifty-seven and married thirty-five years, has had nine children. The last child was born sixteen years ago. The catamenia ceased at the age of forty-nine. Eight months ago—about March, 1891—the patient noticed that on walking the womb dropped and that sometimes it even came outside altogether. About the same time she remarked that the abdomen was increasing in size and it has gradually become more and more prominent. There is no swelling of the legs.

Physical signs.—The abdomen is distended, but not tense. It appears to be more prominent a little to the left of the umbilicus. Over the front of the abdomen is an area of dulness, extending from the pubes to two inches and a half above the umbilicus and transversely from the left anterior

superior spine of the ilium to a line rising vertically from a spot a little external to the middle of the right Poupart ligament. The limit of dulness is not, however, sharply defined. Both flanks are resonant. Midway between the umbilicus and the ensiform cartilage is felt an irregular mass, some of the nodules of which, especially on the right side, appear to be cystic. Below the umbilicus, and more especially to the left of the middle line, the fingers on dipping sharply displace free fluid, and come upon a hard mass which appears to be continuous with the irregular mass already noted. The vaginal walls are very flaccid. The cervix uteri is located rather towards the right wall of the pelvis.

Having seen several cases very similar, I expressed the opinion that we had to deal with a multilocular ovarian cyst and free fluid in the peritoneum, and advised operation. The abdomen contained a large quantity of ascitic fluid. The tumour which was removed was a multilocular ovarian cyst of the right side. There were no adhesions. The pedicle was twisted, but not sufficiently to produce strangulation. Here and there the cyst wall presented patches in a state of fatty degeneration. The cyst contained no papillomatous or malignant growth. Since the operation in October there has been no evidence of reaccumulation of fluid in the peritoneum. It seldom happens that a large quantity of ascitic fluid is noted in association with a simple multilocular ovarian cyst with no adhesions. It is fairly frequently observed when papillomatous growths are detected in the interior of the cyst, and which have extended more or less completely through the entire thickness of the cyst wall. In cases of this latter description rupture of the cyst often takes place. When the papilloma reaches the peritoneal covering of the cyst the general peritoneum is exceedingly liable to become similarly affected; and in many cases of this character, after the successful removal of the tumour, the patient dies eventually with malignant disease of the peritoneum. I am unable to give a feasible explanation of the manner in which dropsy of the abdominal cavity takes place in association with fatty degeneration in the wall of an ovarian cyst; suffice it to say that they are correlated. I have also seen dropsy of the peritoneum in association with fibroid of the uterus, whose structure had undergone degenerative change at spots.

Gordon-square, W.C.

FRACTURE OF BASE OF THE SKULL WITHOUT INJURY TO THE BRAIN.

BY R. D. MOTHERSOLE, M.S., M.D. LOND., F.R.C.S. ENG.

IN his instructive and interesting lecture recorded in THE LANCET of Aug. 20th Mr. Page remarks: "A fracture of the base is not in itself of much moment; its only importance lies in the fact that a basal fracture cannot well occur without grave concomitant injury to the brain." The comparative rarity with which this fracture occurs, apart from cerebral injury, leads me to think that a short account of two such cases may be of some interest. They came under my notice as senior house-surgeon to the Liverpool Northern Hospital in 1890.

The first case was reported by me in the *Guy's Hospital Gazette* for 1890, in order to emphasise the distinction between fractured base with and without brain injury. A robust man of about forty had a heavy cask roll on to his head as he lay on the ground. If he lost consciousness at all it was only for a few seconds. On admission to the hospital there was bleeding from both ears; that from the left soon ceased, but the right continued to bleed for twenty-four hours. From the position of cuts and bruising on the sides of his head it appeared to have been "nipped" in the bi-temporal diameter. In three days' time facial paralysis appeared on the left side. He declared all along that there was nothing much the matter with him, and was with difficulty persuaded to remain in hospital even for a week. In this case there seems certainly to have been a fracture through the left petrous portion, and the copious hæmorrhage from the right ear makes it probable that a transverse fissure extended right across the base of the skull.

The second case occurred a few weeks later. R. B——, a man of forty-seven, was admitted on Sept. 8th, 1890. While taking a barrel of whisky down a flight of steps, descending backwards and steadying the barrel with his knees, he slipped and fell forwards against the steps, the barrel rolling over his head. He did not lose consciousness. On admission into the hospital he had some cuts on his nose and forehead, with fracture of the nasal bones; there was no hæmorrhage from either ear. Next day a copious discharge of clear, serous fluid came on from the left ear, containing a small proportion of albumen. On the 10th a considerable quantity of clear, colourless fluid continued to drain away. On the 12th his temperature, which had been 100° the previous night, rose to 101·6°, and he had an attack of vomiting at 10 A.M. Towards noon he was alternately drowsy and restless, and his speech was somewhat incoherent; the discharge from the ear had almost ceased. He was placed in a dark, quiet room, and his diet reduced from two pints to half a pint of milk per diem. At 1 P.M. twitching of the left leg and right arm was noticed, but in the evening his temperature fell to 101° and he became quite sensible. For two or three days he complained of pain in the head, and on Sept. 15th paresis of the left facial muscles was observed. From that time he improved steadily, and left the hospital on Oct. 11th apparently quite well except for slight weakness of the muscles on the left side of his face.

Although these two cases may be considered rather trivial to be reported, they illustrate very well how the base of the skull may be cracked without injury to its contents. The second patient would appear to have had a slight attack of simple aseptic meningitis. I may be pardoned for differing from Mr. Page, where he says that a fractured base without brain injury "need not cause you more concern than a fracture of the tibia or fibula." The course of the above cases will justify me in this slight criticism of his valuable lecture. I am indebted to Messrs. Puzey and Hamilton for permission to publish the cases, which were admitted under their care.

Bolton.

FOUR HUNDRED CASES OF PHTHISIS.[1]

BY F. M. SANDWITH, M.D.,
PHYSICIAN TO KASR-EL-AINI HOSPITAL, CAIRO.

DURING the past seven winters 104 phthisical visitors have been treated by me in Egypt, and during the last two years I have had under my care some 298 hospital in-patients. The visitors have all been from England, with the exception of six from France, Australia and the United States.

ENGLISH PATIENTS.

It is not intended in any way to make a comparison between the English and the Oriental cases, because all the former, travelling for their health, were well provided with money and friends to help them to take care of themselves. Moreover, the bulk of them were chronic cases, not suffering from fever and not in the last stage of the disease. Hence the extraordinary difference in mortality. I have taken pains to eliminate all cases of "threatened phthisis" and of doubtful delicacy after pneumonia or other diseases, because these are the cases that are obviously the best to send abroad for one winter. I have also taken some pains to inform myself as to the after-condition of patients who improved during their stay in Egypt. The 104 cases may be classed as follows: 72 improved, 18 stationary, 7 worse, 7 deaths. The seven deaths in Egypt consisted of six men—all of whom were obviously doomed before their arrival, and some of whom were only permitted to travel to Egypt under the personal escort of doctors and nurses—and an old case of fibroid phthisis, complicated by progressive muscular atrophy, who died of acute pneumonia in the less diseased of his two lungs. The number of improvements is very encouraging to those who send patients to Egypt and will compare favourably with those of other winter resorts. The majority of the patients have reached Cairo in November, have spent two or more months, from the middle of December, at Luxor in Upper Egypt, and have then spent their time till the middle of April in Cairo itself, at Helouan or at the Pyramids. In April patients go to Ramleh, near Alexandria, or more often to the Riviera, not reaching England till the very end of May. As people in England still have a very exaggerated idea about the heat of Cairo, I should like to take this opportunity of

[1] A paper read before the Section of Medicine at the Nottingham meeting of the British Medical Association in July, 1892.

stating that there is no reason why any patient should not arrive there early in November.

Hæmoptysis is a symptom to which I have paid special attention, because some previous writers have thought it might be induced by the dry air of Egypt, and I find it is a rare symptom among phthisical visitors. Patients with a previous history of it have spent two or three winters in Egypt without any return of bloodspitting. It is, as my statistics will show, a rare symptom among native patients, and when it has occurred among Europeans it has not been of a serious nature. Exercise too severe for the invalid in the teeth of a cold wind has seemed on some occasions to cause it. After nine years' practice in Cairo I have never met with any case of a European who has developed delicate lungs there. Sufferers, both from pulmonary and laryngeal phthisis, after a few weeks in Egypt complain that their mucus in the bronchial tubes or in the throat becomes inspissated, and therefore expectoration is much lessened. This seems to be the direct result of dry air and is one of the earliest signs of improvement. Some amelioration in appetite, weight, strength, sleeping powers and general spirits then takes place. I have no hesitation in saying that for early and quiescent cases of phthisis Egypt is one of the best climates within a week's distance from England. Very advanced cases of phthisis should, in my opinion, be kept in their own homes.

NATIVE PATIENTS.

Reference to the hospital statistics for 1891 will show us at once the enormous amount of tuberculous material constantly at hand. The patients in the medical wards for the year amounted to 1082, including—

Tubercle of lung	225
General tuberculosis	37
Tuberculous meningitis	6
Tuberculous peritonitis	3
	271

The surgical patients during the same year were 1265, of whom no less than 323, excluding lupus, were believed to be tuberculous. It is interesting to notice how much more common it is to find bone disease than joint disease among natives, and also to note the much greater liability of women to suffer from enlargement of lymphatic glands.

Necrosis of bones (male)	52
,, ,, (female)	30
Joints, mostly elbow, knee, foot (male) ...	9
,, ,, ,, (female) ...	13
Ulcerations of skin (male)	25
,, ,, (female)	15
Glands of neck (male)	39
,, ,, (female)...	78
Glands of axilla (male)	7
,, ,, (female)	15
Glands of groin (male)	2
,, ,, (female)	5
Fistulæ after abscesses (male)	12
,, ,, (female)	5
Abscess of back (male)	9
,, ,, (female)	7
	323

It thus appears that one-fourth of the patients of a general hospital are suffering from tubercle, but it must be stated that many of them come, especially to the medical wards, to be treated only when they are in a dying condition. The tuberculous patients are, however, so numerous that if they were natives of Egypt it would become questionable whether it would be right or advisable to send patients from Europe to a country which seemed to possess so much tubercle of its own. But every visitor to our hospital wards is at once struck by the number of negro patients, and it is they who swell the tubercle and mortality returns. Negroes and negroids, like monkeys, have a special aptitude for contracting tubercle when they are taken to live in countries less dry and less hot than their own. Phthisis is very rare in the Soudan and in Upper Egypt, but extremely common in all parts of Lower Egypt among those who have migrated from the upper countries. The Englishman, fleeing from London to escape cold, fog and rain, finds Cairo satisfactorily warm and dry; but it will easily be understood that those who inhabit desert regions between Egypt and the equator find the latitude of Cairo comparatively damp and cold. Aided by insufficiency of food and warm clothing and an entire absence of common sense they fall an easy prey to lung disease.

Races.—As I am only responsible for half the phthisis patients in hospital I have taken the records of the last two years to analyse. My 298 patients include the following:—

Race.	Number of patients.	Mortality.	Per cent.
Soudanese	151	104	68·8
Egyptian	69	32	46·3
Nubian	39	27	69·2
Abyssinian... ...	19	10	52·6
Greek	5	2	40·0
Turk	4	1	25·0
Syrian...	4	1	25·0
Moor	2	1	—
Central Arabs ...	2	0	—
Tunisian	1	0	—
Persian	1	1	—
Kurd	1	1	—
	298	180	—

The last twenty patients on this list may be dimissed with very few words, because they are not numerous enough to generalise from. None had suffered from hæmoptysis except three Syrians and a Greek, though all had extensive disease of both lungs. The Kurd was an opium eater and the Persian had contracted phthisis in London. The Egyptians number only sixty-nine, a relatively small number, drawn not only from 300,000 inhabitants in Cairo, but including many patients from the provinces stretching from Assiout to Alexandria. The Soudanese supply rather more than half the total number of patients. They are slaves or ex-slaves, black or brown-black in colour, negro or negroid in type, and come from various desert homes between Dongola and the equator, say, from lat. 20° N. southwards. Some few come from Suakin and various ports in the Red Sea. The total number of Soudanese in Cairo is reckoned by the police to be 6000 men and 2000 women. The Nubians in Cairo are numbered at 8000 men and 150 women, so that compared to the Soudanese they suffer less in number, though their rate of mortality is equally high. They are a distinct race, dark brown in colour, with a language of their own, inhabiting the banks of the Nile from Assouan to the south of Wady Halfa—i.e., from lat. 25° N. to 20° N. They are an important body of men, because they constitute nearly all the in-door and out-door servants of the European residents. They seldom allow their women to leave home, which accounts for the small number of females in Cairo. Unlike other Mussulmans they drink alcohol freely, and suffer correspondingly from abscess and other diseases of the liver. The origin of the race is obscure, but is in part Turkish. The nineteen Abyssinians consisted of four men and fifteen female slaves. Only two of them had ever spat blood. All had disease of both lungs and ten died in hospital. I have not yet met phthisis among the Bedouins of the desert near Cairo, and they assure me it is extremely rare.

Predisposing causes.—The following combination is generally present:—(1) overcrowding in houses and absence of ventilation; (2) poor food, deficient in nitrogen; (3) houses built on porous alluvial soil, unprotected in any way from cesspools, wells and shifting subsoil water; (4) untreated syphilis; (5) exposure to damp and cold at night from being homeless or from absence of woollen clothing; to these must be added, in women, (6) frequent childbearing and lactation for about two years for each child; and (7) the habits of the townspeople which require women to be kept much in-doors and when abroad to wear thick veils over the face and drive in closed carriages. The continual inspiration of expired air under the veil is doubtless one of the causes of the anæmia so constant in harems. Moreover, natives in bed or in the open air have the habit of sleeping with their heads completely buried in clothing. Many of my Egyptian patients had been previously weakened by syphilis, which is very common.

Mortality.—The death-rate among the Soudanese and the Nubians is extremely high, and during the winter months is even higher than represented in my table. During the warmer months, from April to November, when the climate approaches more nearly their own weather, the death-rate diminishes, and many go out of the hospital alive. The negro makes no effort to live; but, on the other hand, is in no haste to die, for he will spend the last days of his life in moribund apathy, merely swallowing anything that is placed between his lips. His death creates no visible impression upon the other

patients in the ward. The Soudanese mortality would have been even higher if they had not included a few cases from Red Sea ports, who mostly improved in health.

Duration of disease before death.—It is impossible to trace chronic patients who have left the hospital, therefore I have confined myself to those who died, taking, after cross-examination, the earliest possible symptom, such as cough, which the patient could remember. Here it must be stated that the patients, not coming from an intelligent class, are apt to ignore slight ailments which do not interfere with their work. The average among the Egyptians is twelve months and a half with a minimum of one month and a maximum of five years. The Soudanese average is seven months and a half only; the maximum of three years is the only case above sixteen months' duration, while there were as many as twelve patients who had no knowledge of being ill for more than three months. It is interesting to compare these figures with the statistics of hospital patients in Europe and America quoted by Dr. Fagge. Four observers found the duration of phthisis only two years. Dr. Pollock found it two years and a half and Dr. Austin Flint two years and three-quarters. If we allow a liberal discount for inaccuracy and want of observation on the part of my patients, the figures still show the galloping tendency which phthisis has among the blacks. Of the Nubians I have unfortunately only five notes, ranging from two months to five years.

Hæmoptysis.—Of 36 Egyptian patients specially examined with reference to this 22 were certain that they had never had any bloodspitting, while 14, mostly men, had spat blood once or twice at the beginning of the illness. Among 83 Soudanese 75 had never had this symptom, but 8 had had it early in the illness, and 2 of these 8 had it again while in hospital. This great freedom from hæmoptysis among the lower races is interesting. Among 20 Nubians 7 had had previous hæmoptysis and 13 indignantly denied it.

Fever is less high among the Egyptians than with the coloured races, for while the average hectic temperature among the former was 99° in the morning and 101° in the evening, the averages among the Soudanese ranged from 99·5° to 101·4°, and among the Nubians from 99·4° to 101.8°.

POST-MORTEM NOTES.

Necropsies on nearly all cases were conducted by native students in my presence, but the stress of other work prevented much time being given to them, and precluded nearly all investigation by the microscope. I have already shown that most of the cases of phthisis occur among slaves and Nubians, and that the disease kills them in a very short time. I have now to point out the terribly infective nature of tubercle in their different organs. The following analysis shows that among the Soudanese more than three-quarters have tubercle in their lungs, intestines and mesenteric and bronchial glands; nearly one-half have also tubercle of spleen, one-third of liver, one-fourth of pleura and peritoneum, and about one-fifth of kidney.

Lungs.—Among Egyptians 14 per cent. had only one lung affected, but only one patient had both lungs free from tubercle, while 30 per cent. had cavities, large or small. Among the Soudanese only 4 per cent. had only one lung tuberculous, but 9 had no apparent lung disease, and there were cavities in 42 per cent. of the cases. Ten per cent. of the Nubians had only one lung diseased and 3 of them had both lungs free from tubercle, but 53 per cent. had cavities.

Larynx.—The presence of ulcers in the larynx or trachea was noted very few times comparatively, and it was an exception to find any alteration in the voice.

Pleura.—Tubercle of the pleura was evident in about one-sixth of the Egyptians and one-fourth both of the Soudanese and Nubians.

Diaphragm.—Four of the Soudanese showed small tubercles on the under surface of the diaphragm.

Heart.—The heart was as a rule the most healthy organ in the body, but in one case there was well-marked tubercle of the organ itself. In one Egyptian there was mitral and aortic disease. Among the Soudanese there was mitral disease in one case, adherent pericardium in another, tubercle of pericardium in two cases, and in a third patient there was a layer of tubercle an inch thick between the heart and pericardium.

Liver.—Among the Egyptians 14 per cent. had tubercle scattered through the liver, 10 per cent. of the livers were fatty, 7 per cent. nutmeg and 18 per cent. were greatly enlarged, while gall-stones were present in one case. In examining Soudanese corpses I found as many as 33 per cent. tuberculous, 23 per cent. fatty and 11 per cent. considerably enlarged. One man with general infective tubercle had a nutmeg liver containing some small tubercles and an abscess the size of an orange. Among the Nubians some 14 per cent. of the livers were tuberculous, only 4 per cent. fatty, 4 per cent. nutmeg, 9 per cent. extra large, and there was one case of abscess and one case of cirrhosis. It must be remembered that many of the Nubians drink alcohol, and liver abscess is not uncommon among them.

Spleen.—In the Egyptians I found 24 per cent. of the spleens containing tubercles and 20 per cent. more considerably enlarged. In the Soudanese as many as 45 per cent. had tuberculous spleen, often in big cheesy centres, while 3 per cent. had spleens more than double the normal size. Of the Nubians only 14 per cent. had tuberculous spleens, while 18 per cent. of the other spleens were decidedly enlarged.

Kidneys.—In 14 per cent. of the Egyptians I found tubercle in one or both kidneys, while in 33 per cent. more one or both were white and large. Some 14 per cent. of the patients had a trace of albumen in the urine during life and another 14 per cent. had about one-tenth of albumen. Among the Soudanese one patient had suprarenal tubercle, 17 per cent. had tubercle, which in one case was as large as a hen's egg; 3 per cent. had amyloid and 16 per cent. white kidneys, not always large. During life 13 per cent. had a trace of albumen and another 13 per cent. had quantities varying from one-tenth to one-third. Among the Nubians, excluding congestion and simple hypertrophy, only 6 per cent. had tubercle, 6 per cent. had large white kidneys and one patient had consecutive purulent nephritis. But, curiously enough, no less than 35 per cent. had a trace of albumen during life. Here it must be remembered that very many male patients suffer from bilharzia cystitis extending to ureters and kidneys, and this doubtless accounts for the large number of patients whose urine was affected.

Bladder.—In one Soudanese I found tubercle inside the bladder, and outside only in cases of general abdominal tuberculosis. Once in a black I found a vesical calculus, again due to Bilharzia.

Stomach.—One Nubian had tubercles on the outer surface of the stomach. I only mention it because of its rarity.

Intestines.—After the lungs the ileum was the most common seat of tubercle or ulcers, but, unlike phthisis in Europe, ulceration was also very common below the ileo-cæcal valve, and sometimes was present in the upper colon when no ulcers could be discovered in the small intestine. Among the Egyptians 43 per cent. had ulcers in the ileum and 18 per cent. below the valve. Among the Soudanese as many as 77 per cent. had ulcers in the lower part of the ileum, besides 6 per cent. with tubercle on mucous or serous surface, and a further 10 per cent. with ulcers below the valve. Three negroes also had dysenteric ulcers in colon and rectum. Again, 72 per cent. of Nubians had iliac ulcers, 12 per cent. tubercles, and as many as 42 per cent. of these had ulceration below the valve, while two patients had chronic dysentery. One man, besides much tubercle in the upper lobes of the lungs and two large ulcers in the trachea, had 130 separate ulcers extending from the beginning of the jejunum and becoming more numerous towards the valve, and ending with three ulcers in the upper colon. In this patient the mesenteric and bronchial glands were not affected, and I often noticed that where there were many intestinal ulcers there were often no gland changes. In another Nubian, who had large cavities at both apices, caseous centres all over the lungs, greatly thickened pleuræ and no obvious change in the glands, there were very small tuberculous ulcers, which could be traced to the duodenal side of the pylorus, where there were three small ones. In the ileum itself there were very few ulcers, but much small tubercle on the mucous membrane. Immediately above and below the valve there were several large ulcers, and in the rectum there were a few dysenteric ulcers.

Peritoneum.—The tubercle of the peritoneum varied from small miliary points to a thick caseous mass an inch thick, matting together all the contents of the pelvis and lower abdomen. Among the Egyptians tubercle was present in 19 per cent., in the Soudanese 29 per cent., and my notes of the Nubians only mention 9 per cent.

Glands.—The bronchial glands were enlarged and cheesy in about three-fourths of all the necropsies. Mesenteric glands were affected in about four-fifths of all cases, it being a great exception to find them not cheesy among the Soudanese. Four Egyptians had great enlargement of the cervical or sub-

maxillary glands. Eight Soudanese had swollen cervical or axillary glands, while one had axillary lumps and another supra-clavicular swellings. Only one of the Nubians had enlarged cervical glands. These lymphatic glands when cut open resemble completely the caseous mesenteric and retro-peritoneal glands.

Brain.—About one-half of the brains were examined. In the Egyptians I never found tubercle, but in one case there was an abscess under the dura mater. Among the Soudanese I found tubercles four times in the pia mater or choroid plexus. One man had old syphilitic sclerosis near the corpus striatum. I never found any notable change in Nubian brains.

Pancreas tubercle I noticed once only in a Soudanese.

The *ovaries* were not always examined. My notes speak of tubercle once in an Egyptian, and of a case of ovarian tumour, while the Soudanese women furnished four cases of tubercle of ovary and of uterus.

Caries.—I have already said that necrosis and caries are very common among the negroes in the surgical wards, and certain cases of paraplegia are admitted into the medical wards. Among the Egyptians, besides a rickety dwarf and a case of angular spinal curvature, I had four cases of multiple caries of femur, necrosis of tibia and of skull, and a boy who recovered after amputation of thigh for necrosis. Soudanese vertebræ furnished us with five cases of lumbar and five of dorsal caries, besides five cases of ribs, three of sternum and one of hand. The Nubians included one case of rib disease, another of sternum and a third in which the patient died after two years' paraplegia, with healthy lungs and other organs, but with old caries of the ninth and tenth dorsal vertebræ, which had evidently begun in the anterior surface of the bodies and intervertebral discs, and had then spread to the posterior surfaces to the right of the ninth rib and to two cheesy bronchial glands.

Entozoa are so common at necropsies on natives that it is impossible to avoid a brief mention of them. Ascarides were present in four Egyptian corpses, once ten in number, and another time, in a boy aged seven, there were thirty-two of these worms; fourteen were curled up in the stomach, twelve in the jejunum, three in the ileum, one in the colon, one in the œsophagus and one was trying to enter the Eustachian tube. Once I was fortunate enough to catch an ascaris that had died in the very act of boring its way through a tubercular ulcer into the peritoneal cavity. Another time a patient died three days after admission to the hospital. I found a pint of liquid green pus in the abdomen and one large ascaris lying in the peritoneal cavity between the stomach and transverse colon. The stomach was normal and no other worms were found, but a perforation was distinctly seen from the serous side of the intestine, six inches below the ileo-cæcal valve, and this was found to correspond with one of many deep annular ulcers extending from the jejunum to the descending colon. The notes of the Soudanese cases speak of ascarides five times, tænia mediocanellata four times, and anchylostoma duodenalis twice. There was one case of anchylostoma in a Nubian peasant.

A CASE OF ACUTE INTUSSUSCEPTION; ABDOMINAL SECTION; DEATH.

BY F. W. JOLLYE, M.R.C.S., L.R.C.P.LOND., D.P.H.ENG.

MY belief that cases of acute intussusception treated by abdominal section after the failure of milder treatment should be recorded induces me to publish the following case, which, although ending fatally, shows that not only may the intussusception be readily reduced, but that a child when apparently rapidly sinking should not be denied the chance of recovery that may follow reduction after opening the abdomen.

J. H——, aged eleven months, an infant at the breast, seemed well until the afternoon of June 1st, 1891, when he began to be fretful, so his mother gave him a "teething powder." In the evening he seemed in pain and was sick and passed some blood and mucus per rectum. These symptoms getting rapidly worse I was sent for at 7.30 A.M. the next day. When seen at 8.15 A.M. the child was very collapsed, with a pale, pinched expression and uncountable pulse; taking no notice of anybody, but occasionally he moaned and drew up his legs. The vomit had no fæcal odour. On palpation of the abdomen, which was not distended, an elongated tumour could be felt extending from the left hypochondrium down into the left iliac fossa, and the child flinched and drew up his legs when pressure was made over it. The right side of the abdomen felt empty and flaccid. Per rectum the finger could just detect high up the distal end of an intussusception, and on withdrawing the finger bright blood and mucus came away. Being a mile from home I inverted the child and tried inflation with a pair of bellows, but with no result, so I ordered five drops of brandy every twenty minutes until I returned. Dr. W. D. Moore came back with me at 9.30, and having confirmed my diagnosis, administered chloroform, everything being prepared for opening the abdomen if inflation failed. Injections of air and afterwards of water with Higginson's syringe, combined with inversion of the child and simultaneous manipulation of the tumour through the abdominal wall, failing to reduce it, having well surrounded the child with hot water bottles, an incision was made two inches and a half long above the pubes, and introducing my finger into the abdominal cavity found that the cæcum and ascending colon were not in their usual places, and that the intussusception extended from a little above the splenic flexure of the colon to the commencement of the rectum. Having failed to reduce by manipulation with two fingers of my right hand in the abdomen, and my left hand outside, I enlarged the incision up to the umbilicus, and with a little difficulty drew out the tumour on to a warm sponge-cloth, and, steadying it with my left hand, with my right I gently squeezed the distal end, and in a few seconds the proximal end gradually commenced to unfold itself, and as the unfolding went on I followed up the distal end, and had no difficulty in reducing it until I came to the last two inches, which required several minutes' very gentle manipulation to free it. The intussuscepted part, which was intensely injected and flaccid, consisted of the lower part of the ileum and cæcum, as was suspected before the operation. There were a few flakes of recent lymph near the junction of the sheath and entering bowel, and a little blood-stained serum escaped on opening the abdomen. During the operation the child became pulseless, but rallied after a subcutaneous injection of brandy; the abdomen was not washed out as it was desirable to finish the operation as quickly as possible. After the dressings were applied the child was very collapsed. After several subcutaneous injections of brandy he rallied a little, but half an hour after the operation the pulse was so feeble that it could not be counted at the wrist. The child was ordered a teaspoonful of warm water every hour, and half a minim of tincture of opium and ten minims of tincture of belladonna every three hours if in pain. At 7.30 P.M. the child was quite bright and played with anything that was given to it; there had been no sickness, but he was very restless at times and had only passed, the mother said, a little flatus once with no motion. He was ordered a teaspoonful of his mother's milk every other hour through the night.—June 3rd: He had had a very restless night and was sick twice, but had slept for three-quarters of an hour, about 8 A.M. He had passed no flatus or motion, his countenance was pinched and his eyes sunken; the abdomen was a little distended; pulse 120; temperature 100·5°. He was given several soap-and-water injections, but nothing came away except a little mucus and blood. In the evening, as his abdomen was rather more distended, he was given a little chloroform, and the three lowest stitches were removed, with the intention of irrigating the abdominal cavity, but he became so collapsed after the tube was introduced, that it was thought better to desist. The wound was quite healthy and the edges were with difficulty separated. He died at 12.30 A.M. the next morning, and no post-mortem examination could be obtained.

Remarks.—This case was certainly much more acute than the generality of cases of acute intussusception, for within fifteen hours the child was in a collapsed and dying condition, and the only hope of saving him was to open the abdomen immediately inflation failed. The fear was that he would die on the operation table. The operation, although it relieved the intussusception, did not relieve the obstruction, the gut never recovering from its strangulation; and the child died, no doubt, from intestinal obstruction caused partly by this strangulation and partly by the peritonitis which had commenced before the intussusception was reduced, and which continued afterwards.

Alresford, Hants.

THE SANITARY CONDITION AND SANITARY ADMINISTRATION OF RURAL DISTRICTS.

BY J. H. GARRETT, M.D. DURH., L.S.SC. & D.P.H. CAMB.
MEDICAL OFFICER OF HEALTH, CHELTENHAM; LATE MEDICAL OFFICER OF HEALTH, AMPTHILL UNION, BEDS.

No doubt within the last twenty years sanitary progress has been made in some rural districts, whereas in many others the conditions remain very much as they were before the boards of guardians throughout England were invested with the additional duty and dignity of rural sanitary authority. Is it that the condition of the rural population in these districts is so absolutely *comme il faut* that nothing needs to be done? Very few country dwellers outside the boards of guardians will admit that. The years slip past and little or nothing is done. The offensive cesspits, foul ditches and collections of filth remain to breed fevers; the drinking water is as polluted and dangerous as ever; the houses that were old and crazy are the same in a superlative degree, and many of those of more recent erection are damp, inconvenient and unwholesome, being almost always erected with the object of securing a large interest for money invested rather than of supplying the want of decent homes for the labouring class. The result is very visible everywhere. It is not too much to say that half the acute illness in old and young is due to it, to say nothing of the chronic affections and broken health engendered by the consequent exposure and privation. How often do we see in country districts the poor growing prematurely old, their limbs twisted with rheumatism and their powers crippled by chronic heart and lung diseases, drifting into the workhouses, putting the funds of their clubs to a strain, or swelling the visiting list of the parish doctor, when they should be in the hale prime of life? That the best health is always to be found in the best house is a safe axiom, other things being equal,.

Overcrowding exists in rural districts to a large extent, and its ill effects cannot be exaggerated and are too patent to need enumeration; but the moral side of the question is a striking one. Illegitimacy and overcrowding must be nearly related. In the Ampthill Union, where until quite recently there was a standing resolution that made 150 cubic feet of sleeping space per adult person a sufficiency (which had the convenient effect of shelving the subject of overcrowding), the illegitimate birth-rate has averaged 8 per cent. of the entire birth-rate, or about one such child in every twelve born. Considering that the illegitimate child is often an only child, whilst legitimate children probably average four or five in a family, the above fact constitutes a serious indictment against central Bedfordshire, and the same may be said of many another district. In Bedfordshire, as elsewhere, many houses have been built by labourers and others upon the roadside waste, the sites being often cramped, damp and unsuitable, and the result is the present existence of numbers of wretched places that never were or could be healthful. In times past houses have been put up in any place or style, being subject to no sort of inspection or control, and in numbers of places, no by-laws having been made, the same thing may still continue, excepting that there are now no free sites, as the roadside waste is no longer a no-man's-land. Numerous old thatched cottages of an ancient type are also extant, the bedrooms being in the roof, mere lofts with or without windows. Old rows are met with here and there originally put up for fagot voting, and many houses are found almost everywhere throughout rural England of very inadequate size and convenience for the large families that occupy them. Many of the habitations of the rural poor are not worthy of the name of houses, and undoubtedly the greater conveniences and comforts of town houses over those of the country form one reason why the countryman never returns to the village when once he has migrated into the town. In Italy and parts of France one notices that the poor are housed on a different principle to ours, being located in tall houses let out in flats. I have had no opportunity of noting the actual accommodation, but the houses externally have a much less meagre appearance than our poor cottages. The table appended shows the size and population of some cottages examined in the Ampthill Union.

Table showing Houses found in some Bedfordshire Parishes in which the space of Sleeping Rooms was less than 300 cubic feet per Adult, two Children under twelve years of age being reckoned equivalent to one Adult.

Locality.	Number of bedrooms.	Total sleeping space in cubic feet.	Number of adult occupants.	Space per adult head in cubic feet.
Cranfield	2	949	5	189
"	2	1000	6½	154
"	3	1450	5½	263
Marston	2	1130	8	141
"	2	1130	4½	251
"	1	934	4	235
"	2	1568	6	261
"	2	1440	6½	221
Maulden	2	1467	5	293
"	2	1506	5½	274
"	2	1506	6	251
"	2	1896	6½	291
Clophill	2	1567	8½	184
"	2	1567	6½	241
"	1	900	4½	200
"	1	938	4½	208
Shillington	2	1488	7	209
"	1	1800	6½	277
"	2	1470	6½	225
"	2	1470	5½	267
"	2	1470	5	294
"	2	1568	8	196
Flitwick	2	1606	6	266
"	2	1600	5½	290
"	2	1260	5	252
"	1	875	5½	162
Greenfield	1	672	3½	192
"	1	672	3	224

The general impression gained on inspecting the cottages is that there are many houses in a wretched condition, often great overcrowding, with unhealthy surroundings, such as pigsties and middens. Many of the houses, being built on the roadside waste, are cramped for space and have no gardens. Some cottages consist of two rooms, one up and one down, and a great many have only two bedrooms. Beds are often crowded in the bedrooms, which have small windows and insufficient ventilation. It is sometimes necessary to get over one bed to get into the further one. The rents of older places are 1*s.* 3*d.* and 1*s.* 6*d.* a week. On the western or Buckinghamshire side of the Union some lace making is carried on in the cottages. By working all day a woman can make a yard of narrow lace, which she sells for sevenpence. On the eastern side of the Union a few women are employed in straw plait and hat making. Straw plaiting used to be such a good trade that the men preferred to stay at home to work at it rather than work in the fields. This industry has been ruined by the importation of Canton plait and the introduction of plaiting machines. For twenty feet of plain straw plait threepence is now paid, and a woman works hard to earn two shillings a week. At Maulden and elsewhere plait is given out to be sewn into hats. Plain hats are sewn together at the rate of ninepence and a shilling a dozen.

Much remains to be done in regard to the drainage of villages and village towns. The best mode of sewage disposal for villages is perhaps not satisfactorily arrived at, but the old system of privy vaults or cesspits is undoubtedly the worst system, and as such should be suppressed. It is still almost everywhere in vogue, generally in conjunction with a water-supply from shallow wells. But under any circumstances a system of drainage is necessary to carry off slops and waste waters used for washing, culinary purposes &c. Wherever there is an aggregation of houses drains are required or a nuisance is sure to be caused. At present in many villages there are either no drains, the waste waters being thrown round about the doors, or a few rude pipes lead from a sink into the nearest ditch, which is consequently liable to become foul and offensive. The sanitary authorities have power to make drains in every village, but when such a matter is brought forward it is generally again and again postponed. Sometimes also, when drains do exist, their condition is such as to render them almost as dangerous as the old cesspits, so badly have they been constructed; or it may happen that, new public drains or sewers having been laid down, the authority has failed to make the owners of houses drain into them. Some of the sewers have also been

very badly laid. The local bricklayer has been allowed too often to do the work according to his own ideas, there having been no proper survey and nobody to make one, for there is no officer in rural districts corresponding to the urban surveyor.

As to the disposal of sewage in villages, the question constitutes a very general difficulty. In numerous instances sewage continues to be discharged direct into brooks by right of long usage. When treatment is suggested difficulties are certain to present themselves. Somebody's interest is at stake to prevent acquisition of land for irrigation; what was good enough for their fathers is good enough for them, they argue, and point to the manure in their farmyards as an instance of the harmlessness of sewage. Then the expense of the thing, who is to bear it? The village may consist almost wholly of cottagers whose average wage is perhaps 12*s.* a week, upon which a family can only be poorly sustained. The whole Union will not provide benefit for the single parish. The whole parish will not provide for the limited area that is to be benefited. The large farmers upon whom the chief weight of taxation would fall are probably guardians who are not willing to tax themselves for the sake of what they consider to be a doubtful benefit for the labourers of the village. So the undrained premises, polluted wells and wretched dwellings remain. In a large village a scheme of drainage has been under consideration on and off for five-and-twenty years and nothing had been done up to 1892.

With regard to water-supply, this is often very inadequate to the requirements of the villages both as to quantity and quality, being so frequently derived from a few shallow wells. Some thirty analyses of well waters taken at haphazard from wells in Ampthill pointed to the likelihood of 100 of the 200 wells there containing water unfit to drink. At Marston Moretaine the people have a choice of three pumps situate upon three separate premises, the remaining houses being destitute of any supply. A small sum per bucketful is or was charged by the proprietor of one or two of the pumps for the water. The favourite pump yields a water of bitter and saline quality, containing an enormous amount of inorganic solids—a mineral water, in fact, of greater strength than that of some of the spas. The water has often to be carried for long distances at immense inconvenience and labour. These are instances of a very general state. In some cases a better supply could be obtained at small expense. The rural sanitary authorities are as yet scarcely awake to their full responsibilities and powers. They shirk the onus of borrowing capital to construct drains and waterworks, and it does not strike them that the prevention and spread of disease are to a large extent in their hands, and that disease and premature death may be and are caused by their negligence in not carrying out necessary reforms. The delay in adopting the Notification of the Infectious Diseases Act and supplying accommodation for the isolation of infectious diseases, for instance, must have been the cause of incalculable mischief. Other and larger duties devolve upon a rural sanitary authority than the simply initialling by its chairman of the minor items in the inspector's book; yet too often this has constituted the sole business, the good done being little more than nominal. The power of the sanitary staff is immensely increased by a good code of by-laws, but some of the rural sanitary authorities appear to think that by-laws are intended for urban districts solely, and will have none of them. In the majority of rural districts no proper system of disinfection is carried out; sometimes a little money is expended upon the purchase of disinfectants, and a few bottles of carbolic acid &c. are distributed; but it is a grave question whether much good results from such imperfect methods. Disinfection of bedding and clothing by heat is a rare practice, and sulphur fumigation is irregularly performed. The houses being often so overcrowded as to be injurious to health at the best of times, isolation at home is quite impracticable, the conditions on the contrary being such as are highly favourable to the spread of the zymotic diseases, yet rarely have isolation hospitals been erected.

Altogether there is much sanitary work to be done in rural districts. Little is yet accomplished, and little likely to be accomplished under the present *régime*. The rural sanitary authority is formed of the chief ratepayers of the district, many of whom are farmers or others who live in isolated houses, and who reap no direct benefit from the expenditure of money on sanitary improvements, whilst they have to contribute the chief share of the cost. The knowledge of its members, again, in the main, is not sufficient to enable them to appreciate the benefits accruing from an improved sanitary condition of the villages, whilst they are prejudiced against innovation and conservative of old methods which have existed throughout their lives and those of their forefathers. Moreover, they have little time to devote to questions of public health, and are unready to take up any matter which is likely to bring them under the fire of public criticism, especially if the borrowing of a few thousand pounds is necessitated; yet they not infrequently fritter away in small items and half measures an annual sum that would pay interest on a large borrowed capital, and also pay up the capital itself within a reasonable number of years.

As respects the medical officer of health who is appointed to advise the rural sanitary authority, he holds a very invidious position. The whole question of village sanitation initially rests with him, but his salary is generally so absurdly small, perhaps averaging £60 per annum, that it is often more than absorbed by the expenses of getting about the Union, which may contain twenty or thirty parishes and have an area of 200 or 300 square miles. The first part of his time is devoted to his private professional work; or if he be not in general practice he is obliged to undertake a combination of unions in order to make a respectable income, so that it is utterly impossible for him to cover the ground, which may extend into several counties. The presence of the medical officer of health at the meetings of each board is no doubt salutary, but to attend all the meetings is in the one case impossible or would absorb all the time, and in the other case is worth more than the whole salary paid, especially as boards of guardians show very little appreciation of a medical man's time and will keep him waiting whilst other business is in progress, as if he had nothing else to do. As regards the salary paid to the medical officer of health and the size of his district, the matter lies rather in the hands of the Local Government Board than with the board of guardians, inasmuch as every appointment is confirmed by the higher authority.

The present rural sanitary administration is therefore unsatisfactory from several points of view, and is ineffective and wasteful. It is usual to put the blame upon the laws, and no doubt the Public Health Acts are too permissive in character and too vague and limited in definition; but much good work has been done under them in towns, and much might be done in the country if they were properly administered. A change must be made, and the duty may fall upon the County Councils, which do not appear to be overburdened with work at present, to act as central sanitary administrators and manage the finance. The parish or district councils that have been promised, on the other hand, which from their very number must be constituted differently from boards of guardians, could enter into the details of their own requirements. The medical officer of health who would be appointed to such a part of the county as is compatible with an active supervision, giving his whole time to the duties, could be called in at every parish meeting where sanitary business was to be discussed, to supervise the sanitary work of his district, and to give an account of the same to the County Council at its quarterly meeting. He should also have a seat on the Council Board and give advice when called upon. A county sanitary rate would be required. Should the County Council, being moved by party politics or otherwise, decline to defray the cost of the sanitary improvements voted by the parish or district council and recommended as necessary by the medical officer of health, an inquiry by the Local Government Board could be held to settle the point of necessity.

Cheltenham.

PERMANGANATE OF POTASH IN THE PREPARATION OF FRESH SECTIONS.

BY E. T. WYNNE, M.B.CAMB.,
PATHOLOGIST, COUNTY ASYLUM, BAINHILL.

FOR the past nine months I have been using permanganate of potash as a fixing reagent in the place of osmic acid for preparing fresh sections of the central nervous system, checking the results by Mr. Bevan Lewis's method. Though this reagent may not surpass the best results obtained with osmic acid, I have found it more trustworthy for every-

day work and more expeditious. I need hardly point out that it is much cheaper. Permanganate has of course long been known as a powerful fixing reagent, but I have been unable to find any evidence of its use in the preparation of fresh sections. As I have given it an extensive trial I wish to bring it to the notice of histologists, and more especially of demonstrators and others who have to prepare large numbers of sections for classes. By this method two operators (one to cut the sections and the other to carry them through the fixing process) could easily prepare sufficient sections for a class, without an inordinate expenditure of time. The sections are quite permanent. The steps in the process are briefly these: The sections are cut with a Cathcart or some similar microtome, and each as it is cut is plunged (on the knife) into a 0·1 per cent. solution of permanganate. The section must not remain more than ten seconds in the solution (four to five seconds is plenty for normal brain), but be taken out on a glass lifter[1] and transferred to a basin of clean *cold* water. The sections will be found slightly tinged yellow. This comes out in the process of washing and staining. The sections, which have been accumulating in the basin of water, are now put into a 0·25 per cent. solution of blue black (or a 0·1 per cent. solution of china blue), where they remain from ten to fifteen minutes. A large quantity of stain should be used and care taken that the sections are freely exposed to the dye. When stained they must be well washed in water, picked up on slides and allowed to dry. The best results are obtained by allowing them to dry slowly over night, but with care they may be dried in about an hour in a warm chamber. There are three points of importance—viz., to see that the water and permanganate solution are *cold*, to wipe the under surface of the knife-blade after cutting each section and not to freeze the tissue hard—it should cut like a potato. I use a deep quarter-plate developing dish for my permanganate solution. In it the knife can be readily submerged without wetting the handle and without having an inconvenient depth of fluid.

While on the subject of fresh section cutting, I should like to help in the removal of what seems to be a very widespread superstition with regard to the keeping of solutions of osmic acid. Osmic acid solutions are generally to be found swaddled up in brown or orange paper, or in "non-actinic" bottles, and kept huddled away in the darkest corner of a cupboard, under the impression that this will prevent decomposition. These precautions are quite unnecessary, and, unless the points to be mentioned are observed, quite useless. I have kept solutions of osmic acid over a year without any protection from light. Though they have been in daily use they are as good as when first bought (except for a diminution in strength, due to volatilisation). To keep osmic acid the bottle in the first instance must be clean. This is ensured by rinsing it out with strong nitric acid and then with distilled water. The only other precaution necessary is to wipe the neck and stopper of the bottle before using the acid, so that no dust may fall into the solution. The advantages which permanganate offers over osmic acid are these: (1) Its cheapness. (2) The solution is of a known strength, which can hardly ever be the case with osmic acid. (3) It is quicker, and by using it the section has not to be floated off the knife before being put in the fixing solution.

Rainhill.

[1] The lifter is a glass rod drawn out to a point and bent at an angle.

FRIENDLY SOCIETIES' MEDICAL INSTITUTE, NORTHAMPTON.—The annual report of this institute just issued records a membership of 14,369. The income of the Society is somewhat less favourable than last year, as compared with the expenditure; but this is accounted for by the outlay necessary for the supply of new fittings. The death of the late assistant medical officer, Mr. J. N. Whitfield, was referred to in terms of regret for the loss of his valued services.

HOW INFECTIOUS DISEASE IS SPREAD.—A grocer's assistant was summoned last week at the Rotherham police court for being in a shop while suffering from an infectious disease. He went to his shop when recovering from an attack of scarlet fever, whither the doctor followed him and found him weighing up articles for sale, the defendant at the time being in a highly infectious state. The magistrates, in view of the expense to which the defendant had been put, imposed a fine of only 20*s.* and costs.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL AND THERAPEUTICAL.

SPASMODIC ACTION OF THE LOWER JAW OF SIX YEARS' DURATION CURED BY OPERATION.

BY NOBLE SMITH, F.R.C.S.EDIN.,
SURGEON TO ALL SAINTS CHILDREN'S HOSPITAL.

ON March 26th of this year B. M——, aged twenty-nine, came to me suffering from a spasmodic action of the lower jaw. There was a powerful grinding movement of the teeth, the lower jaw acting spasmodically towards the right continuously. This affection had commenced six years previously after an illness brought on by cold and involving paralysis of the left leg and back, for which she was laid up for six months. The teeth also became carious about this time. During the last four years the spasms had been very severe and continuous, and the pain and distress which the affection caused were becoming, the patient declared, "almost unbearable." The teeth were to some extent worn away by the constant grinding action. The temporal muscle and the pterygoids on the left side and slightly on the right were occasionally in action, but the muscle which acted incessantly and most powerfully was the masseter of the left side. I sent the patient to Mr. Collyer, who kindly extracted some teeth and informed me that he had removed every apparent source of dental irritation. There was some relief to the severity of the spasms after this, but it only lasted a few days. Mr. Collyer said he could do nothing more unless he extracted all the teeth that remained. Upon this I advised operation on the nerve supplying the masseter muscle. The patient was first seen by Dr. Hughlings Jackson and by Dr. Gowers.

The operation was performed on June 27th, Mr. Davis administering the anæsthetic. I made a vertical incision from the centre of the zygomatic arch downwards, and exposed and carefully dissected out the transverse branches of the facial nerve. Holding these branches aside, I cut down upon the masseter muscle, divided the oblique fibres and exposed the vertical, through which I cut towards the sigmoid notch, where I met with the masseteric branch of the inferior dental nerve, from which I removed a quarter of an inch. From this time all spasm of the jaw ceased, and it has not returned. It is needless to endeavour to describe the relief to suffering which the patient has experienced from the cessation of the spasm after six years' continuous pain and worry. She is nervous, fearing that the spasm may return, and sometimes, she says, gets a little twitch of the mouth, but there is nothing apparent to observation. In operating I accidentally wounded Stenson's duct, and there was a flow of saliva from the cheek for about a week. With a few applications of nitrate of silver the minute opening soon healed up. The rest of the wound had healed by first intention, and now there is only a trace of the incision.

Queen Anne-street, W.

HYPERTROPHY OF THE MUCOUS MEMBRANE OF THE UPPER LIP.

BY WM. ERNEST MILES, M.R.C.S., L.R.C.P. LOND.

THE case I am about to describe is of interest, not only because examples of hypertrophy of the mucous membrane of the lips are by no means of common occurrence, but because it illustrates the tendency to recurrence of these tumours *in situ* after removal by operation, unless that procedure is efficiently carried out.

A. M——, a male inmate of Broadmoor Asylum, drew my attention to the existence of a small pendulous growth arising from the inner surface of his upper lip, a little to the left of the frænum and extending in an outward direction for the space of about an inch. The growth was not noticeable when the lips were closed, but presented a somewhat unsightly appearance when the patient spoke

or laughed. It had been slowly increasing in size and latterly had become a source of annoyance to him during mastication. Previous to his admission here he tells me he had been troubled with a similar growth in the same situation, which he removed himself with a pair of scissors. A cure however was not effected, since, very soon after the wound had healed, the growth again began to make its appearance, and had now become troublesome in the respect I have mentioned. Recognising the case to be one of hypertrophy of the mucous membrane, from the nodular and shotty character of the contents of the tumour, I decided upon removing it with the knife. This I did by means of an incision carried round the base of the tumour, taking care not to encroach upon the free margin of the lip. Having removed the superabundant tissue, I noticed several small yellowish-white bodies about the size of a split pea (the hypertrophied labial glands) scattered over the surface of the wound. These I removed carefully by means of a pair of dissecting forceps and then closed the wound with horsehair sutures. The wound healed by first intention, leaving no deformity, and although it is now some months since the operation there is no sign of a recurrence of the growth. Mr. Bryant has shown that this hypertrophy is due to an overgrowth of the labial glands and that unless these are all removed the growth is likely to recur. When my patient performed the operation on himself several of the hypertrophied glands must have escaped removal, and I have no doubt it is to this fact that the recurrence of the growth *in situ* is to be attributed.

Broadmoor, Berkshire.

DISLOCATION OF THE RADIUS BACKWARDS AT THE ELBOW-JOINT.

BY LEWIS E. PARKHURST, B.A., B.CH., B.M. OXON.

ON August 1st I was called to Mr. B——, aged sixty years, who had been thrown out of a dogcart, alighting on the palm of his left hand. I saw him within ten minutes of the occurrence of the accident, and before any swelling had arisen. His arm was semiflexed at the elbow and midway between pronation and supination, and it could not be moved without causing great pain. The elbow was found on inspection to be greatly increased in breadth when viewed posteriorly, and there was a prominence behind and just above the external condyle of the humerus, which was found, on rotating the hand, to be the head of the radius; the latter could not be felt in its ordinary position. The nature of the accident was clear and unmistakable, and that it had been caused by a fall on the hand was apparent both from the patient's statement and the existence of an abrasion of the skin over the ball of the thumb. Reduction was easily effected by extension of the forearm followed by traction, and the patient was at once able to move his elbow and fingers. The arm was put up at a right angle on a moulded posterior angular splint, and he travelled home next day. Mr. de Mesquita, house-surgeon to the Croydon General Hospital, who subsequently attended him, has kindly informed me that the progress of the case was in every way satisfactory.

This is a very rare accident. Professor Langenbeck of Göttingen, in giving an account of the only two cases of dislocation of the radius he had ever met with, says: "Dislocation of the radius backwards" (at the elbow-joint) "must be an extremely rare occurrence, since Sir Astley Cooper[1] never met with this accident in the living and only once in the dead subject."

Brackley, North Hants.

[1] Fractures and Dislocations, 1842, page 459.

CLINICAL HOSPITAL, CHEETHAM-HILL-ROAD.—On Monday was opened, without any public ceremony, the new wing of the Clinical Hospital for Women and Children, Park-place, Cheetham-hill-road, for the accommodation of out-patients. The total outlay amounts to £2000, which has been raised by subscription.

PROPOSED NEW PARK.—There is some talk of converting the site lately occupied by the Wild West Exhibition into another breathing space for the inhabitants of London. A conference is now being arranged for by the parishes of Kensington, Fulham, Hammersmith and Chelsea to consider the new project, the estimated cost of which is £25,000.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se compare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Procemium.

GREAT NORTHERN CENTRAL HOSPITAL.

A CASE OF TETANUS, WITH PROLONGED LOCKJAW, SUCCESSFULLY TREATED BY CHLORAL AND CHLOROFORM.

(Under the care of Dr. CHOLMELEY.)

THE successful treatment of tetanus is a subject which possesses constant interest for members of the profession, each case affording useful data for future help. It is true that this case presents characters common to the large majority of cases successfully treated, and the course was essentially chronic. We have recorded many instances of recovery from tetanus. In 1887 Mr. Meldon[1] read a paper on this disease and gave statistics of 937 cases collected by him. He had administered hyoscyamus, belladonna and conium in 17 cases, with only 4 deaths, in his own practice. Of the other cases, in 370 treated by chloral 83 recovered and 287 died; in 135 treated by curare 23 recovered and 102 died; 60 by nicotine, 3 recoveries, 57 deaths; 96 by opium, 4 recoveries, 92 deaths; 21 by conium, 3 recoveries, 18 deaths; 76 by cannabis indica, 12 recoveries, 64 deaths; 28 by bromides, 2 recoveries, 26 deaths; 103 by alcohol, 25 recoveries, 78 deaths; 41 by all other remedies, 17 recoveries, 24 deaths. He excluded from this table those in which the first symptoms were noticed later than the fifteenth day. In 16 cases which we have published in our columns since the appearance of that paper chloral hydrate was employed in 5 and bromide of potassium in 8; hydrochlorate of morphia, strophanthus tabloids and extract of physostigma in others; in 7 morphia was also used for the relief of pain. These, again, are not examples of the more acute form of tetanus, for the period which elapsed between the receipt of the wound and the onset of the disease varied from four days to four weeks. In the majority of cases the use of chloral produced the most marked effect, conjoined with rest and the due administration of fluid nourishment. Verneuil in 1885 recommended strong doses of chloral and bromide, with quiet &c.; and in the previous year a similar line of treatment was advocated by the Royal Academy of Medicine in Ireland. Of late there has been little new to record in the treatment of tetanus; the questions of immunity, infection &c. have, however, attracted much attention. Many experiments made with chemicals, to test their action towards weakening or destroying the cause of tetanus, have so far yielded no specific, nor indeed found a useful remedy. There are some cures announced after an extended trial of subcutaneous injections of carbolic acid. The use of chloroform to allay spasms, procure sleep and permit of proper feeding was most successful in the following case, and when this remedy is used the symptoms are usually very severe.

S. N——, aged seven, was admitted on July 22nd, 1892, with the following history. He had run a small but dirty splinter of wood into the palm of his right hand about three weeks previously. The small wound had not healed properly, but remained in an unhealthy-looking condition; a few small vesicles of watery pus occasionally formed around it. On July 18th his parents noticed that his face was apparently drawn to the right side, but as he did not seem ill he was allowed to go to school, where he was able to join in the play as well as the work and showed no symptoms of illness. On the following night he was convulsed several times, but was better in the morning and again attended school. At night the convulsions returned and he could only open his mouth a little way owing to the continued muscular spasm.

When admitted to the hospital two days later the boy was said to have taken no food for the previous forty-eight hours. His jaws were firmly fixed, his whole body was

[1] THE LANCET, vol. ii. 1887, p. 317.

rigid and he could only just stand. His back was arched, his abdomen as hard as a board, his head retracted, the features drawn into a grin, but he did not complain of actual pain. Attempts to feed him with a tube only resulted in still more violent spasm, the whole body being thrown into the position of opisthotonos. The spasm was, indeed, so severe that the respiration nearly ceased, the patient becoming rapidly livid. Chloroform was at once administered and the spasm passed away under complete anæsthesia. The jaw could then be opened and, a gag being inserted, the mouth was explored, but nothing abnormal discovered, with the exception of a pellet of chewed paper at the back of the tongue. By means of a nasal tube a mixture of milk, beef-tea, yelk of egg and brandy was passed into the stomach and retained, and fifteen grains of chloral hydrate were given in the same way. The child slept well for several hours, the spasm of the abdomen and limbs being quite relaxed and that of the jaw nearly so. On waking the boy seemed quite conscious but drowsy, and an attempt to feed him in the ordinary way was made, but only with the result of producing recurrence of the spasm and the necessity for the further use of chloroform. Vomiting occurred once, and for the moment the jaw spasm was relaxed, but rapidly came on again. The spasm of the trunk muscles was unaffected. There was no relaxation of sphincters.

On the second day after admission it was found possible to feed by the mouth by sips sucked through the teeth, but this improvement did not last long, and again the feeding tube had to be resorted to under chloroform and large doses of chloral administered, doses varying from ten to fifteen grains being given at longer or shorter intervals as the severity of the spasms required. This condition continued until July 31st, the child becoming very thin, the superficial veins of the trunk being very prominent and general cyanosis coming on at intervals. The pulse remained fair; the temperature never rose above 99° and the bowels acted. Steady improvement began to be noticed during the first week in August, and by degrees the general muscular spasm and finally the spasm of the jaw completely passed away and the use of chloral could be suspended with safety. The patient made an excellent and complete recovery. The case was carefully watched and very judiciously handled by Mr. Gordon Calthrop, the house physician, to whom most of the credit for the successful issue is due.

EASTERN FEVER HOSPITAL.

TWO CASES OF GLANDERS.

(Under the care of Dr. COLLIE.)

THESE two records of patients who died from glanders are of considerable interest at the present time, when the disease is attracting much attention, and it is important to observe that both were sent to the hospital with the diagnosis of typhoid fever, and this suggests the possibility of similar cases being treated at their own homes for that disease, when really they are examples of the much more serious one of glanders. It will also be noted that the first patient was taken into hospital in 1890, the second in August, 1891. We have recently in an annotation[1] drawn the attention of the profession to the dangers attending the prevalence of glanders in horses in various parts of the kingdom, and these cases further prove the necessity for much greater stringency on the part of the Government in the treatment of horses suffering from the disease. The great risk run by those attending on the horses is shown in Case 2, where the effect of sneezing on the part of the horse appears to have been sufficient to cause inoculation in that patient. "There is only too much reason to apprehend that not a tithe of the cases of glanders occurring amongst horses in London and the provinces are reported to the sanitary authorities." It is a disease which rigid supervision should stamp out. For the notes of the cases we are indebted to Mr. James Dickinson, late assistant medical officer.

CASE 1.—F. H——, a male, aged twenty-five years, was admitted to hospital on Dec. 24th, 1890, certified as suffering from enteric fever. History obtained on admission: Ailing for some time. The patient was seized with shivering on Dec. 17th and since the 19th had been delirious. On admission he was delirious and was restrained with difficulty. Aspect suggestive of pneumonia, but no physical signs detected.

[1] THE LANCET, vol. ii. 1892, p. 267.

Dec. 25th.—Bloody matter in sputum; no physical signs found in chest. Throat generally reddened, hyperæmia over chest. Abdomen retracted; no tenderness; no diarrhœa.

27th.—Physical signs of consolidation detected over right back. Cough troublesome, with plenty of blood-stained frothy sputum; a cloud of albumen in urine. The patient grew weaker from day to day and wasted visibly. The cough was incessant, the sputum blood-stained and copious. The signs of consolidation became more extensive over the right back and appeared also on the left. Otherwise the man's condition did not present any markedly new features till the date of the following notes.

Jan. 5th, 1891.—Very prostrate, semi-conscious and inclined to mutter. Could protrude tongue, but with great difficulty, when bidden sharply. Respiration very rapid; pulse almost uncountable. All dejecta passed into bed; there had been seven motions in the previous night. Discharge from nose and left eye; the discharge from the nose had been first noticed the day before; it was then slight and watery; it was now thick and copious. On making the man blow his nose there appeared a quantity of yellow purulent matter and a large piece of tough membrane. Scattered over the trunk and limbs was a scanty eruption of papules, vesicles and pustules. One or two pustules had been noticed on the previous day. Each vesicle and pustule was surrounded by an area of injected skin. They rapidly increased in size, so that in a few hours from their first appearance they were all sizes, from that of a pin's head to that of a shilling. There were also several intense erythematous patches, all seated over joints. The joints themselves appeared to be unaffected. Deep-seated fluctuating swellings were detected in both calves and over one shoulder. No glandular swellings.

6th, 1.30 A.M.—Death.

The course of the temperature throughout is shown on the accompanying chart.

Necropsy, fourteen hours after death.—Pericardium unaltered; heart dilated and laden with fat. Recent pleural adhesions all over right lung; a few adhesions on left side. Right lung nearly solid throughout, with extreme emphysema at apex and anterior margin; it had a very lumpy feel and was of an intense deep-red colour, except where areas of emphysema stood out, owing to the engorgement of the bloodvessels, a bright vermilion. The condition appeared from subsequent microscopical examination to be a mixture of pulmonary apoplexy and lobular pneumonia. The left lung presented a less degree of the same condition. Both broke down easily under the finger. The throat and larynx were not remarkable; nasal fossæ not examined. The alimentary canal was examined throughout without noteworthy result beyond extreme injection and catarrh of the small intestine; the normally solid abdominal viscera were all of rotten consistence; the spleen contained one large infarct; the kidneys weighed 11½ oz., were rather pale on section, but the structure stood out with remarkable distinctness; under the capsule was a layer of intense injection; no pus in any of the joints; there were several collections of dirty-looking pus seated in the substance of muscles, particularly the calf muscles; when the skull-cap was taken off several loose collections of pus appeared between it and the dura mater; beneath the dura mater and the brain were several similar collections; there was universal injection of all the cranial contents.

History subsequently obtained from the brother: The man's work was all amongst sick horses. He had "to put the balls down their throats," and had more than once been bitten so as to draw blood. He had been ailing for two or three months from headache, cough, loss of flesh and weariness, but his doctor had told him he was not ill enough to throw himself on his club. He kept to his work, but with great difficulty, up to Dec. 17th. When he reached home on that day his knees gave way under him, and he was put to bed. He did not rise again.

CASE 2.—S. C——, male, aged twenty-six years, was admitted to hospital on Aug. 14th, 1891, certified as suffering from enteric fever. The history brought with the patient was that he had been delirious for some days. On admission his breathing was rapid, and physical signs of pneumonia were at once searched for, but without result. No rash. There was a small pustule on the abdomen.

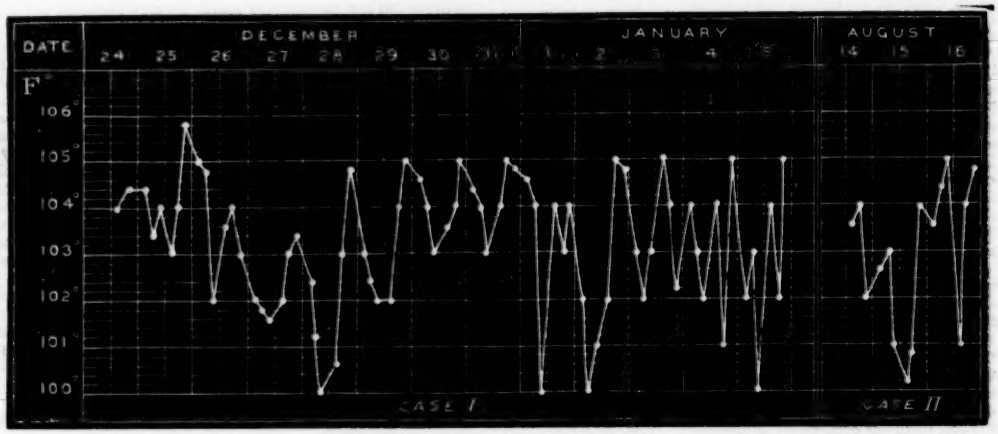
Aug. 15th.—Night. Breathing rapid and panting. Some impaired resonance at bases, but no other physical sign detected over lungs. Heart: action very rapid; no increase of cardiac area; no murmur. Patient semi-conscious. Urine passed freely into bed. There was an eruption of pustules each surrounded by a red area distributed over trunk, limbs

neck and face. The pustules varied in size from that of a pin's head to that of a sixpence. From the appearance of the eruption glanders was at once suspected and fluctuating swellings were looked for and several detected in the calf muscles. No discharge from nose or eyes; no cough; no diarrhœa. The finger-joints of both hands and one elbow-joint were swollen and red.

16th.—Eruption very copious. The individual pustules had increased very much in size and some were larger than shillings. Several large ones were broken in the centre and seemed to be drying up. Blood had been effused into some of them and there were one or two large vesicles containing blood-stained serum. There were many fluctuating swellings, some deep-seated in the calf and arm muscles, some subcutaneous. There was a hard swelling as large as a filbert and crowned with a petechia in the glans penis. Urine was drawn off by catheter for examination. It contained a dense cloud of albumen. No discharge from nose or eyes; no glandular swellings; no fresh joints affected. At night the patient became comatose, snoring loudly.

17th.—1.40 A.M.; death. The course of the temperature is shown on the chart.

Necropsy, thirty-six hours after death.—Heart dilated and laden with fat; muscular substance rotten. No pleural adhesions. Lungs deeply congested and very œdematous; no consolidation. Kidneys weighed 16 oz.; capsules moderately adherent. The cut surface had a purple-mottled hue, and the cortex could scarcely be distinguished from the pyramid. There was pus in the finger-joints and one elbow-joint. There were many intra-muscular and subcutaneous collections of pus. All the other important organs were examined without definite result.



The following history was subsequently obtained from the father. The patient, in addition to his work as shopman, had charge of some horses. A horse with discharging nose sneezed in his face five weeks before admission. Two days later the man complained of pains in his limbs, headache and shivering. He did not take to his bed till a fortnight before admission. The horse died before the man.

Reviews and Notices of Books.

Geographical Pathology: an Inquiry into the Geographical Distribution of Infective and Climatic Diseases. By ANDREW DAVIDSON, M.D., F.R.C.P. Edin., late Visiting and Superintending Surgeon, Civil Hospital, and Professor of Chemistry, Royal College, Mauritius. In Two Vols. Edinburgh and London: Young J. Pentland.. 1892.

IN these two large handsome and well-printed volumes Dr. Davidson essays a laborious and difficult task—viz., a general survey of the distribution of infective and climatic diseases throughout the globe. "The object of this work," the author says in his introduction, "is to sketch the geographical distribution of infective and climatic diseases and to trace the influence of temperature, rainfall, altitude and soil conditions on their prevalence, character and epidemic spread." Under the term "infective diseases" the writer includes "miasmatic diseases, such as malaria; miasmatic contagious maladies, such as cholera; and the contagious diseases proper, such as scarlet fever. Climatic diseases include, amongst others, croup, bronchitis, pneumonia and rheumatism, which are either owing to, or are materially influenced by, metereological conditions." Organic diseases of the heart, kidneys and nervous system are only noticed in some exceptional cases, where they seem to be influenced by climate. Malarial fevers in their endemic and epidemic forms receive very full attention and their consideration occupies a large portion of the work. Typhoid fever, dysentery, yellow fever, influenza, pneumonia and phthisis are dealt with at length. Only those who have personally worked in this field of inquiry can adequately realise the immense difficulties which beset the task to which Dr. Davidson has addressed himself, difficulties arising out of scanty, imperfect and often untrustworthy sources of information, different methods of registration, anomalies in medical nomenclature and from other causes. The author says: "To determine the actual prevalence of any given disease over an extensive area with any approach to scientific accuracy is obviously, under present conditions, impossible. The utmost that can be attained is an approximate estimate of the relative prevalence of diseases in different countries. Fortunately," he adds, "such a knowledge as is attainable in regard to most countries is not only full of interest to the student but of vast practical importance to the statesman, the army medical officer and the sanitarian." In some countries, such as Norway and Sweden, all cases of disease which come under the notice of the district medical officers are regularly reported to the State authorities, who publish annual reports, which are accessible. This direct method of ascertaining the prevalence of disease is obviously the best, but it is not always available. The statistician is usually compelled to resort to such indirect methods as "(1) the determination of the proportion of deaths from a given disease to a unit of the population, or (2) the proportion of deaths from a given disease to the deaths from all causes within a certain area, or (3) the ratio which each disease bears to the total treated in hospitals, or (4) the reports of physicians who have resided in, or of travellers who have visited, the less civilised countries as to the diseases they have observed to prevail among the natives." Dr. Davidson prefers the first of these indirect methods when available, and adopts it as often as

possible. It detracts from the lucidity and intelligibility of the multitude of statistical tables scattered through this work that first one system is adopted and then another; but this absence of any fixed system is one of the inevitable results of the imperfect character of the available data. The sources from which the author has drawn his information have been "the official returns of the statistical departments wherever these have been attainable. These returns have formed the basis of the accounts given of the pathology of Norway, Sweden, Germany, Austria, Switzerland, Holland, the British Isles, France, Spain, Italy, India, the British Colonies generally and the United States." For the Indian Archipelago, Senegal and Tonkin, the author has depended "on the admirable reports appearing from time to time in the pages of the *Archives de Médecine Navale*." For Borneo, Singapore, Ceylon, Cyprus, Persia, Gibraltar, the West Coast of Africa, the Congo Free State and some other places he has received special reports from medical authorities in the various localities. Dr. Davidson acknowledges his special indebtedness to the great and well-known works of Hirsch and Lombard.

To review adequately so elaborate and exhaustive a work as the one before us would obviously require more space than we can devote to it. We have carefully studied Dr. Davidson's volumes and we regard them as an important contribution to the study of a vast and complex subject, and likely to fill a useful and honourable place in medical literature. The style is easy and clear, the information is well marshalled, the writer seems laudably free from bias, and the printing and appearance of the work leave nothing to be desired. Nevertheless, the author would probably be the first to admit the imperfections of his work—imperfections which are, to some extent, inherent in the nature of the subject. We are struck by a sense of vagueness and incompleteness in many parts, by the inconclusive character of many of the discussions in which the author engages and by the not infrequent admission of hearsay statements. We admit, however, most fully that the subject is one in which to insist upon a high degree of scientific precision would be simply chimerical. The author has introduced statistical tables when possible. We are surprised that he has made such sparing use of maps. The only principal country thus honoured is India, of which an ordinary school map of no particular value is introduced. We are at a loss to account for this exception, and we think the work loses seriously by the rarity of graphic representations of the prevalence of disease. In discussing such a subject, for example, as the prevalence of malaria in Italy, it seems obvious that a map, coloured so as to show the malarious districts and the varying degrees of virulence of the disease, would be most helpful and valuable. We are struck also in many places by a sense of disproportion in the amount of space and attention given to certain countries and diseases. Thus Great Britain and Ireland receive less space than Mauritius (42 pp. as compared with 58 pp.), a disproportion which is hardly satisfactorily accounted for by the fact that the author has spent a large part of his life in the latter island. We have noticed a few errors in the statistical tables and calculations of averages, but not such as to impair the general accuracy and trustworthiness of the work. We do not care, however, to dwell on small blemishes. If Dr. Davidson has not succeeded in producing a book which can rival, either in exhaustiveness, precision or philosophic temper, the monumental works of Hirsch and Lombard, he has made a very substantial contribution to the study of the geographical distribution of disease, and has produced (so far as we know) the best work on the subject hitherto published n the English language.

Much of the information contained in the work before us is of extreme interest. We find that "the average birth-rate in England and Wales for ten years (1878–87) was 33·5; during the first five years it stood at 34·4, but has lately been decreasing, for during the last five it had fallen to 32·6. The average death-rate in England during seven years (1881–87) was 19·2, while in the ten years preceding (1871–80) it was 21·4. The death-rate is thus diminishing and is lower than that of any European country, except Ireland, Norway, Sweden and Denmark." We find that malaria, once so common and fatal in England, is now steadily dying out. The deaths from this cause have fallen from 8·2 per 1,000,000 living in 1841 to 3·2 in 1885. The most malarious parts of England are Bedfordshire, Kent and Huntingdon; the least, Rutlandshire, Westmoreland and Oxfordshire. The improvement is due to better drainage and improved methods of cultivation. It is very satisfactory to find that England also shows a steadily diminishing mortality from enteric fever. The death-rate per 1,000,000 living from this cause, which was 373·8 in the five years (1871–5), had fallen to 277·2 in the succeeding five years, and to 215 in 1881–85. The investigations of Dr. Davidson tend to show that enteric fever is most prevalent in seasons when the mean annual temperature is above the average, and the temperature of the third quarter of the year especially so. He has been unable to trace any connexion between the prevalence of enteric fever and rainfall. Diphtheria appears to be increasing in England, the average death-rate from this cause having risen from 121·3 per 1,000,000 living in the decennium 1871–80 to 155·6 in the five years 1881–85. Phthisis shows a marked and steady decline. The deaths from this cause per 1,000,000 living, which were 2526·6 in 1861–65, had fallen to 2218 in 1871–75, and to 1820·6 in 1881–85. Dr. Davidson agrees with most inquirers in attributing the prevalence of this affection partly to the character of the soil and partly to the occupations of the people. Cancer, as is well known, is increasing in these islands. "The disease is not observed to follow the course of rivers or to be affected by geological formation; it affects indifferently the poor and the rich, and occurs with equal frequency in agricultural and industrial districts."

Dr. Davidson devotes 164 pages to the interesting subject of the distribution of disease in India, and gives us one of the best accounts of the question which have appeared. Naturally, the consideration of the various forms of fever occupy most of his space. "Throughout the whole of India," he informs us, "there is no province or extensive district entirely free from malarious disease." In the year 1883, out of 5,595,648 deaths in India from all causes, 2,883,101, or more than one-half, are ascribed to fever. Malaria is most prevalent in the North-west provinces and Oudh; the Punjab comes next; Bombay, the Central Provinces and Berar are also much affected; while Calcutta, Madras and Mysore show a relatively low mortality from malaria. The forms of malarial fever in India are the intermittent, the remittent and the continued. "Among the natives the intermittent is by far the most common, but the remittent is by far the most fatal. Among the European troops the continued form is the most common." Intermittent fever is an autumnal disease on the Indian plains. In some of the hill stations a spring rise is found. The prevalence of the disease is in proportion to the mean temperature of the summer months. The influence of rainfall is more complex. It would appear that the important point is not so much the amount of rain as the nature of the soil and the facilities for drainage. "The evil effects of water-logging of the soil," says Dr. Davidson, "whether brought about through irrigation or inundation or by excess of rainfall, is a point past dispute. It must be counted a potent factor in increasing malarial prevalence." In many parts of India there is an apparent inverse ratio between fever prevalence and fatality and dysentery prevalence and fatality; but there are exceptions to this rule.

As regards the disputed point of the prevalence and frequency of enteric fever in India, Dr. Davidson says that

"enteric fever was formerly regarded as exceedingly rare in India, although it is now recognised as one of the most fatal diseases of the young European soldier during the earlier years of his sojourn in India. It is generally held up to the present time that the disease is rare among the natives of India; but," he adds, "it will probably be found that it is not so rare among the natives of India as is generally supposed, although it is undoubtedly much less frequently met with among them than among the newly arrived Europeans." Military statistics show that enteric fever causes ten times as many deaths among the soldiers in India as in England. No less than 65·2 per cent. of the admissions occur in soldiers who have had less than two years' service. Many Indian authorities incline to the view that the disease often arises independently of any specific infection. A very full account is given of cholera, but into this subject we cannot enter. Hepatitis is one of the most fatal diseases of the English soldier in India. In 1883 the death-rate from this cause in the British force was 1·13 per 1000, while in the native army it was only 0·18 per 1000. The difference, according to Dr. Davidson, is due to the freer use of spirituous liquors by the European soldier. Hepatitis is most fatal in the Madras presidency, where malarious diseases are least frequent. Leprosy is endemic in India. The proportion of lepers is 57·3 per 100,000 of the population. Berar is the province in which leprosy is most prevalent. It is also common in Bengal, in the Punjab, in the Central Provinces, and in Assam and Burmah, while it is comparatively infrequent in Ajmere, Mysore, Gujerât, Chittagong &c. "All the facts," according to Dr. Davidson, "seem to point to heredity or contagion as the means of its spread and the cause of its persistence in any given locality," while the evidence "lends no support to the view that it is caused by a fish diet."

We might enter into many other interesting questions which the perusal of these volumes naturally suggests, but our space is exhausted and we must rest content with what has been already said. The study of the geographical distribution of disease is likely to throw much light on many interesting and difficult questions. To that study Dr. Davidson's work is an important contribution.

Annali delle Epidemie occorse in Italia dalle prime memorie fino al 1850. Scritti da ALFONSO CORRADI, Dottore onor. dell' Università di Cambridge &c. Vol. VII. Appendice. Parte 1 e 2. 4to, pp. 1265. Bologna: 1892.

THESE two goodly quartos, containing together 1265 pages, are the supplement to Professor Corradi's previous six volumes, the first of which appeared in 1865, and are the completion of his great undertaking, all but a volume of indices and tables which is now in the press. The profession of medicine may well be proud of this achievement. The work has been designed on a scale which we are apt to think belongs only to the old days of erudition—to the age of folios and quartos; and it has been executed in the most workmanlike fashion, without diffuseness or unnecessary discursiveness, with economy of space in the use of various sizes of type and in the remarkably uniform system of citing authorities, and (so far as we have observed) with strict relevancy and point in the critical comments. From the nature of the subject this immense work has been a labour of love, made possible by the author's occupancy of a chair at Pavia and by the liberality of the Medico-Chirurgical Society of Bologna in bearing the expense of publication. No other country but Italy could have yielded the same abundance of materials to work upon, and it is in keeping with the old repute of the Italian universities and learned academies that the copious historical records should have been so thoroughly and correctly handled. With Professor Corradi's monumental book to point to, no one can say that the old spirit is extinct. Utility, or immediate profit, may appear at times to bear down everything else or to do so in one country more than another; but there is as much learned curiosity as ever there was and a far more perfect apparatus for gratifying it.

The two quartos before us, making the seventh volume of the Annals of Epidemics in Italy, consist partly of matter which had been inevitably overlooked in the long series of years dealt with, partly of information which has been brought to light since the work began in the numerous recent researches of Italian antiquaries and historians. Nearly the whole of the supplementary matter belongs to the period subsequent to the arrival of the Black Death (1347–48), only some sixty pages being occupied with new facts from the earliest mediæval period or the period of antiquity. The principal supplement, occupying 1014 pages, covers the whole period to the year 1850 for the second time, and might pass for a tolerably full series of annals if there had been no six volumes already published. But new matter was still accumulating while the supplement was under hand, so that the chronology had to be gone over for the third time in 246 pages more. It is clear that the author could never have found a place for all his original facts, and for these successive additions to them, had he not designed his work under the form of annals. Under each year are chronicled events of more or less importance, at more or less length, with or without critical remarks or discussions. This is, of course, the method of Dr. Dryasdust, as if, to use Carlyle's illustration, the space for each year of the chronology bore the superscription "Dry rubbish may be shot here." But it is all a matter of taste whether such collections, methodically arranged, including often the full text of historical records, are to be accounted dry or of the nature of rubbish. The annalistic method offers many advantages in the way of fulness and precision of statement; and it may be safely affirmed that Professor Corradi could not have produced so serviceable a work if he had followed the plan of a consecutive digested story of the various types of epidemic sickness in the several provinces of Italy from the earliest times. What happens under the annalistic treatment is that certain years afford the opportunity for considerable chapters of history: such years, for example, as 1348, when the Black Death comes up; or the year 1494, when syphilis broke out; or 1528, when the French army was in Italy and the whole country was full of typhus fever; or 1557–8, when there was influenza; or 1576, when many of the Italian cities were desolated by plague. The supplementary matter alone under 1576 occupies no fewer than forty-eight pages of small type. Again, under the year 1471, we find the full text of a Modena plague-bill for that year; and under 1448 there is a comparison, in parallel columns, of the teaching of two early treatises on plague, one by Pietro da Tussignano, who died in 1403, and the other by Saladino Ferro about 1448, the problems of contagion, of incidence, of favouring conditions &c., discussed in these mediæval writings being curiously like those which interest ourselves. In his second supplement, under the year 1348, the author adduces some further evidence concerning Gabriel de Mussis, whose manuscript on the outbreak of the Black Death at the siege of Caffa in the Crimea, discovered at Breslau in 1842, has been made of primary importance, inasmuch as he claims to have seen the first of that great epidemic with his own eyes. The new evidence tends to show that De Mussis was practising the law at Piacenza all the time, so that he may have got his information merely at second-hand from some one who had returned from the East.

These are examples of the immense variety of interesting and important points dealt with by the author as they arise under the respective years. The forthcoming volume of indices will be indispensable. The promised indices or tables are ten in number: (1) Index of authors and works cited; (2) topography of the epidemics; (3) chronology of the epidemics; (4) table of dates with localities; (5) military

and naval epidemics; (6) epizootics; (7) principal meteorological phenomena; (8) other public calamities; (9) occasions of public assistance—distribution of food, medical aid, &c.; (10) index of all other notable things. It will be seen from this enumeration that the annals record all the events that may have had any relation to epidemics—earthquakes, volcanic eruptions, floods, droughts, famines, as well as the various murrains. The information from the several provinces and cities of Italy is so full that calamities of all kinds, from influenza to plague, seem to follow each other with bewildering frequency. So many famous cities of Lombardy, Venetia, Tuscany and the other Italian States had a vigorous civic life at so early a period that their chronicles are more fully written or better preserved than is the case with regard to the rest of Europe. Italy was a century or two ahead in such matters, as well as in specially medical writings like the classical work of Fracastori on Contagion. For these and other reasons the annals of epidemics in Italy afford unequalled opportunities to the epidemiologist. Professor Corradi's task has been exacting in proportion, and has been executed with scrupulous fidelity. It would be interesting to know in what way so much erudition acquired throughout a lifetime had coloured his views of contemporary doctrines and controversies. At the end of his work he permits himself four pages of epilogue in which he indicates, not without eloquence, the bearings of epidemiological study. Among other points we observe that he appears to assign a somewhat inferior part to specific living organisms in the production of specific infections. He appears to refuse altogether the high parasitic doctrine: "La storia delle grandi epidemie di *tifo*, e in particolare le navali e le castrensi, si oppongono a si recisa sentenza."

THE CONTAGIOUS DISEASES ACTS.

IN the current number of a monthly journal there appears a letter from a correspondent on "The Solidarity of Vicious Methods." In it the probability of the Contagious Diseases Acts being restored is pointed to, and the various individuals living and dead, together with the medical and lay papers which have defended these Acts and deprecated their repeal, are held up to public ignominy. The late Mr. J. Fenimore Cooper, the American novelist, warned the critics, in his preface to "The Pilot," that as a sailor he possessed the privilege of including them all under the sweeping title of "lubbers." Similarly we might regard the writers of those many articles and letters which have appeared in the lay press denouncing us and our advocacy of these Acts as ignoramuses and treat their foolish effusions with silent contempt. We prefer, however, to adopt a more courteous tone and at least to endeavour to show these writers their errors. The letter before us places us in doubt as to whether the writer belongs to the sterner or the weaker sex. In the second sentence of the letter the repealed Acts are termed the "ghastly State regulation of prostitution." It has been shown over and over again that the State never proposed or attempted to regulate prostitution, but to prevent certain contagious diseases at certain military and naval stations. This jumbling together of vice and disease is a favourite device of the opponents of these Acts, since it has the effect of securing the support of that large number of members of both sexes who possess neither logical reasoning powers nor lucidity of argument. Men and women of the world who do possess these know that vice and disease are not necessarily cause and effect. A man who keeps a mistress is quite as vicious or immoral as a man who resorts to a prostitute, yet the former may commit deliberate fornication with impunity for a lifetime, while the man who yields to the wiles of a prostitute may contract a disease which will infect his constitution for years. If he be a married man he may infect his wife and unborn child; if a single man he ought to be warned against marrying for years to come; and in either case much annoyance and suffering are involved. Again, infection with venereal disease is governed by certain circumstances which this confusion of terms wholly ignores. Some individuals of either sex are from natural conformation peculiarly liable to contract disease; others are not. The influence of circumcision as a factor in preventing infection is well known to those practitioners who treat venereal diseases. Hence the contention that venereal diseases are a heaven-sent punishment to vicious persons is not true. The Acts were applied to a very limited area, the localities in England being Aldershot, Canterbury, Chatham, Colchester, Dartmouth, Deal, Devonport, Dover, Folkestone, Gravesend, Maidstone, Plymouth, Portsmouth, Sheerness, Shorncliffe, Southampton, Walmer, Winchester, Windsor and Woolwich. In Ireland the operation of the Acts was limited to The Curragh, Cork and Queenstown. Now, if the effects of the Acts were so vicious as their opponents contend, we should have had both negative and positive evidence of this. The places just named would, during the application of the Acts, have been remarkable for an increase of flaunting vice; while the localities not subject to them would have presented a marked contrast in this respect. But what are the facts? The evidence of perfectly independent and thoroughly unbiased witnesses given before the Royal Commission and the Lords and Commons' Committees was that the effect of the Acts in reducing the number of prostitutes and in promoting better order in all the districts subjected to them was most marked. On the other hand, the condition of London and the other large towns and cities in England and Ireland to which these Acts have never been applied has altered but little as regards prostitution within the twenty-eight years which have elapsed since the first Act of 1864 was passed. Moreover, since the Acts were repealed the towns formerly subjected to them have not improved. On the contrary, so greatly has prostitution increased, and particularly in its worst form of juvenile prostitution, that the local authorities would welcome the re-enactment of these Acts. Turning again to the letter we find that THE LANCET is abused for its article of Jan. 23rd "praising the moral effects of the Acts, and speaking of their opponents as though they were enemies of morality and mercy." Various other journals, both professional and lay, come in for severe reprehension for defending these Acts. THE LANCET being alluded to no less than five times in the course of the letter, we may briefly recapitulate our reasons for the course adopted in these columns with reference to this legislation. We maintain that it made an attempt to deal with what religion and philanthropy had failed to do—the social evil in its worst aspects. What notice had been taken of the wretched women in Portsmouth and Plymouth, in Chatham and Windsor, in Cork and The Curragh? What attempt had been made either to cure their diseases or to attempt their moral reclamation? Either nothing at all or so little that it had not even scratched the surface of this great evil. By means of the Acts these women were brought under the kindly notice of the visiting and hospital surgeons, who examined them with every regard to their feelings and ministered to them in hospital until they were cured. Being gradually humanised, they became in a better condition to become reformed. By the kindly assistance of the chaplains and matrons, supplementing the work already begun by the surgeons, these women in numerous instances forsook their previous wretched life and eagerly embraced the facilities afforded them of commencing a better one. All these are facts which cannot be disputed or denied, and so the term "State-regulated prostitution" simply recoils on those who use it, not from knowledge, but from ignorance of these Acts and their working. These diseases are acquired not from sin merely, but from sin committed with a diseased person. Those who are really virtuous and wish to remain so can do this whether the Acts are in force or not. No man or woman need sin against his or her will. For all these reasons we shall continue to support these Acts and to urge their restoration, amended as circumstances may require, to the statute-book of this country.

PROPOSED ISOLATION HOSPITALS.—At a meeting of the Epsom Local Board last week it was resolved that a permanent isolation hospital be built on land belonging to the Board at Kingston-lane, and that application be made to the Local Government Board to sanction a loan of £1000 for that purpose. The rural sanitary authority of Redruth is making arrangements for the erection of a hospital for the isolation of patients suffering from infectious diseases.

THE LANCET.

LONDON: SATURDAY, SEPTEMBER 24, 1892.

IT is easy to be critical or even cynical over the instructions of the Royal College of Physicians for the treatment of "patients suffering from cholera, choleraic diarrhœa or diarrhœa"; but admitting, for the sake of argument, that the College was obliged to formulate some instructions (and as we said last week they appear to us to be plain and practical and in accordance with the line which we ourselves recommended to be adopted by the profession) we do not see that it could very well have done better than it has done. This is, however, a considerable admission. The College might have taken different ground and given different advice. We are disposed to think that it would have acted wisely in doing so. The Royal College of Physicians is a representative and responsible body. It is not entitled at a great crisis of national sickness to withhold its sympathy and its help from the people. When called on by the Local Government Board, representing the State, for its contribution of wisdom and counsel, it is under a very grave obligation to do its best. It must be admitted further that there is precedent for going into detailed prescriptions, though scarcely, perhaps, in such detail as in the suggestions just issued by the College. We have before us a report of the action of the College in similar circumstances in 1866. On that occasion the College was set in motion by the Lords of Her Majesty's Privy Council, as represented by their distinguished medical officer, Mr. (now Sir JOHN) SIMON. Sir JOHN SIMON'S request was limited and modest as compared with that of the President of the Local Government Board. It simply raised the question of the expediency of issuing instructions *to captains of merchant vessels* as to how they should act when proper medical attendance could not be procured so as to provide for the health of their crews against attacks of cholera. Their lordships wished particularly for the suggestions of the College—first, as to the necessity of avoiding purgative medicines, and, secondly, ar to the measures to be adopted when cholera appeared on board ship. On the present occasion the Local Government Board propose to issue Regulations for the guidance of local sanitary authorities, requiring them, amongst other things, to provide and dispense without charge medicines and medical appliances for the sick, and they apply to the College for instructions and prescriptions, with the flattering remark that they believe the local authorities will attach great value to the medicines which the Royal College of Physicians consider best adapted to patients suffering from cholera, choleraic diarrhœa or diarrhœa. This is a much larger request than that of the Privy Council in 1866, and one which involves much more serious consideration. The reply of the College is perhaps a very natural one, and, as we have said, if it had to undertake instructions and prescriptions could not well be better. The instructions for the maintenance of general health indeed suggest that they were framed by practitioners who cater for that section of the community who command any number of meals they please of any quality, including choice wines, and who are equally able to select model houses for residence, with drainage and all appurtenances complete, rather than for the poor. The prescriptions are as good as general prescriptions for individual cases could be and fairly represent present therapeutic views as to the best measures to be taken for the prevention of cholera in cases of diarrhœa. We even admire the ingenuity with which the advocates of rival methods of treatment are conciliated, and with which the general indications of experience and common sense are respected. It is refreshing to see the ancient College alive to the virtues of coto, which has as yet no place in our pharmacopœia, and which, it may safely be assumed, is still an unknown drug to many chemists and even too many Fellows of the College. There are also cognisant of the still more recently discovered powers of enemata of tannin, of which a very interesting account will be found in THE LANCET of last week, p. 682. But the question still remains whether it is a dignified position in which to place the College of Physiciansto ask it to be a party to the preparation of two or three huge bottles or reservoirs of medicine out of which practically the whole community is to be doctored. There is no disease which can be treated with advantage in such a general fashion, and cholera especially defies all routine prescriptions, It may seem very natural to some minds that the State should undertake a general treatment of the cholera of the community, and that "without charge." The ease and cheapness of the scheme are fascinating, and so is the idea of bringing the humblest citizen into the advantage of being prescribed for by the College of Physicians. Still we gravely question the advantage. It is the undoubted duty of the Local Government Board to see that the poorest section of the community in the remotest parts is medically provided for at all times, and especially in times of great and urgent sickness. But it cannot discharge its responsibility by applying for a few prescriptions to the College of Physicians, to be dispensed mechanically for cases and in circumstances which the College never contemplated. The only efficient way in which the Local Government Board can secure medical aid to the poor is to use its influence over local sanitary authorities in the direction of perfecting the arrangements for procuring easy and early medical and nursing attendance. These arrangements should include provision for house-to-house visitation in poor neighbourhoods under any suspicion of harbouring the disease or the conditions favourable to it. What is wanted is not so much physic as physicians who can attend promptly to individual cases and give them the particular treatment which each case requires. We are confident that in this view we shall have the concurrence of the College itself. It is not only that general instructions applied in a routine way cannot be relied on, but the tendency of such action on the part of the College is to diminish individual earnestness and the sense of individual responsibility. The function of a College of Physicians is to qualify men to treat disease and then to throw the responsibility for its treatment on them—not to supply chemists and medical men with ready-made prescriptions. This is the way to hinder therapeusis rather than to help it. So much as regards even the poor. It is essential to supply them not so much with medicine as with medical men. One way in which the Local Government Board can best effect this supply without undue strain on the local authorities is to restrict it to the poor. We seem to see in the letter of Sir

HUGH OWEN an intention to take the whole community in hand and to cater for those who have their own doctors and the means of paying them—"to provide and to dispense, *without charge*, medicines and medical appliances for the sick." This is a large order, for which we see no need or justification. The addition of one word will remove all objection to the sentence as it now stands. But this addition is essential if such schemes are not to be demoralising. Instead of sick read "sick poor," and in addition to medicines and medical appliances say "and medical men," and all will concur in the enlightened and benevolent energy of the Local Government Board.

THE conditions under which clothing is made are at the present time exciting unusual interest, because it has been alleged that a member of the Royal Family has been exposed to risk of infection from circumstances which, in the tailor's trade, lead to clothes being made in the homes of the workers. It does not appear from the published statements that there was more than possibility of danger; it is not alleged that the clothes of this distinguished person were actually made in a room occupied by a case of infectious disease, but the reader is left to infer that what is possible for a prince is a matter of daily occurrence for those less highly placed, and that there is for the community at large a very palpable danger of infectious disease spreading from the tailor's workshop or the homes of his *employés*.

The channels by which diseases of this class may be conveyed from the sick to the healthy are so numerous that it is impossible to ensure with any certainty that any person, however well circumstanced, shall be entirely free from all risk. That every care should be taken to lessen the chances of accident will not be disputed; but in considering what is practicable, it is necessary to remember that the workers are unable to guard themselves against disease and that the public cannot insist on the adoption of more than reasonable precautions. The lesson that has to be learnt is that we are all members of one family and that it is only by safeguarding the poorer members against maladies to which all are liable that the richer can hope to secure their own protection.

We may recall with satisfaction the fact that as long ago as the year 1884 THE LANCET appointed a Commission to inquire into the condition of Jewish tailors in the East-end of London, mostly foreigners, the greater number of whom were Poles. Our Commissioners found them working in unwholesome, overcrowded houses, where girls and women were kept employed long after the hours prescribed by the Factory and Workshops Act. Such people were wanting in even the more elementary habits of cleanliness which are possessed by the poorest of English people. These aliens arrive in England usually entirely ignorant of the language, and become the slaves of those who choose to employ them for the most scanty remuneration. The insanitary conditions under which work was done showed that there was open defiance of the Factory and Sanitary Acts. It was, indeed, matter of great difficulty to get reliable information regarding the relations in which the workers stood to their employers and to each other, for upon the appearance of a stranger steps were immediately taken to mislead. The women and children were scattered all over the house, and if questioned the answer came readily that one was a niece, another a daughter and so on. It is not matter for surprise that these poor people could know nothing of the dangers, to themselves or to those who wore the clothes they made, of infection from a case of fever or small-pox in their family.

Later, extending our investigations to Manchester, Liverpool and Birmingham, as well as to Glasgow and Edinburgh, we found that in these towns much the same conditions existed. The subdivision of work led to insufficient feeding, overcrowding and overwork; the poorest classes were employed at the smallest remuneration for work made under conditions which rendered the workers liable to disease which might readily be conveyed eventually to the wearers of the clothing. Undoubtedly some improvements have been effected since that time, and the necessity for more detailed inspection of the places in which work is done has been recognised, for it has led the Legislature to place the supervision of workshops and workplaces entirely under the control of sanitary authorities, with the additional precaution that in the event of these bodies being found to be negligent the Secretary of State has reserved to himself the power to send, to use Mr. MATTHEWS' expression, "an army of inspectors" to carry out the law.

It is too soon to judge of the result of this legislation. The sanitary authorities will now be held to be responsible not only for the condition of the places in which the workers dwell, but of those in which they are employed, and this latter in relation to the subject which we are now discussing is not the least important matter. It may be hoped that the object of this change in the administration will not be lost sight of. For any effectual protection of the public the staff of sanitary officials must be largely increased, and if the public require protection from dangers which have lately attained exceptional prominence, they must not begrudge the cost of the administration. Precautions such as those we indicate are in every sense reasonable; they are such as everyone has a right to expect; for while the well-to-do may, when paying a higher price for their clothing, demand that work shall be done on the premises of the master tailor, the multitude must rely for their own safety upon that more general protection against disease which the enforcement of the provisions of the Public Health Acts is capable of affording.

AMONG the COKE MSS. in the possession of Earl COWPER at Melbourne Hall are several letters from ANNE, Countess Dowager of ARUNDEL, to her son, the famous Earl THOMAS (who collected the Arundel Marbles), relating, among other things, to his children, who appear to have been mostly left in charge of their grandmother, sometimes at Arundel House in London, sometimes at Sutton, a country house on the north bank of the Wey, about three miles north-east of Guildford and three miles south of Woking. The Manor of Sutton in Woking belonged to the family of WESTON, one of whom (Sir HENRY, who died in 1592) had married a daughter of Sir THOMAS ARUNDEL of Wardour, her mother having been a HOWARD of Arundel. Perhaps that is how we should explain the fact of Lord ARUNDEL'S children residing at Sutton, near Guildford, with their grandmother. Several of these letters belong to the winter of 1613-14, when the Earl and Countess were in Italy; they contain various references to the health of the three boys, which need not detain us. It is in the following two letters, undated, but belonging to the month of

February, 1619 (not "about 1616," as the editor of them for the Historical Manuscript Commission says conjecturally), that HARVEY is introduced to us as a consulting physician. The fourth surviving child, CHARLES HOWARD, who was born subsequently to 1614, fell ill suddenly; whereupon his grandmother despatched a messenger to the Earl to "send with speed the best doctor may be had." The doctor sent was HARVEY, who would doubtless have ridden down from London, a distance of some twenty-five miles, crossing the Thames probably at Kingston. Whether he arrived in time to see the child alive does not appear clearly from the second of the two letters. He met Mr. RAYNER of Guildford in consultation, and it is pleasing to note that he took the same view of the case as that practitioner. He was to stay the night at Sutton, and it was hoped, when the messenger was despatched late on Saturday, that Dr. HARVEY would be stirring early next morning, so as to ascertain "the true inward occasion"—i.e., make a post-mortem examination. The first letter, dated "Sutton," is printed as follows in the Calendar of the COWPER MSS.:—

"Presently after the despatch of my footman we found that Charles was not after his usual sort, refusing breakfast. ..... hath took nothing, but tossed and drank sometime in the night. ..... His wind very short, and his pulse and heart worketh so extremely fast as I never knew the like ..... I assure, sweetheart, the poor child is exceeding evil. I beseech you send with speed the best doctor may be had. I fear the child very much. God bless him and you all."

The next letter is dated

"Sutton, Satr. late.

"MY GOOD SONNE—About two houres after my servant's departure towards yr Lo. this morning the poore child continuing very sicke hee cast twise a littell quantity of darke tawny color. Some time after, being then about noon, he cast a good quantity together of black color, which did offer some time to come in littell quantity so long as he had life. It pleased our blessed Savyour to take him to himselfe something before 4 a clocke this after none, having suffered very sharp pains befor his ende. Mr. Doctor Harvy is of the same opinion that my Gilford neighbour Mr. Raner was to day when he did purseve what he did avoyde, which is, that some continued impostum caused his ende. I trust Mr. Doctore will so early be sturing as Mr. Ardern shalbe able to lett yr Lo. bee satisfyed of the inward true occasion, and I beseech you for godsake to comforte your selfe and my good sweet daughter with the true good of the sweet soule of your littell sonne, for I am sure wee should all have hartily rejoyced if it had pleased God to have sent him health and strength of body....

"I ever rest, your Lo. faithfull loving Mother,

"ANNE ARUNDELL."

Any glimpse of HARVEY is of interest; and the fact that he was employed by the Earl of ARUNDEL as early as 1619 is of some importance. It was through Lord ARUNDEL that HARVEY came to make the anatomical examination of old PARR, in November, 1635, his lordship having brought that aged person from Salop to London, kept him in his own house, and presented him to the King as a wonder. Next year (1636) HARVEY accompanied Lord ARUNDEL as his physician, in the embassy to the Emperor to settle the affairs of the Palatinate. But, in the above letters, we have clear evidence of his attending the HOWARD family at a much earlier period of his London career. The letters are undated, but the incident to which they relate, the death of the youngest boy, CHARLES HOWARD, is known to have been in February, 1619. HARVEY had already been ten years physician to St. Bartholomew's Hospital. The only ambiguity relates to the place called "Sutton." There were two Suttons near Guildford—Sutton House, which was the original manor house, and has long since disappeared, and Sutton Place, which was built for the WESTONS, a fine quadrangular edifice of HENRY VIII.'s time, entered by a great gateway flanked by towers, with a gallery in which Queen ELIZABETH was entertained, and a hall of spacious proportions. It is still there, all but the fourth side with the gateway, forming one of the architectural sights of the county of Surrey. It seems probable that this was the Sutton from which the Dowager Countess dated her letters: it belonged to the WESTONS, a Catholic family connected by marriage with the HOWARDS; it had a chapel in which Mass continued to be said without interruption from pre-Reformation times; and Father WILLIAM WESTON, a leading recusant priest, was the Dowager Countess's spiritual director. Her son, Earl THOMAS, had conformed to the Anglican rite, but he seems to have left his children to be brought up as Roman Catholics by their grandmother. In 1857 the Duke of NORFOLK printed from a family MS. a life of that pious and exemplary lady, along with a life of her husband, Earl PHILIP. The incident of the boy's death, as above, is brought in to show her religious resignation; but beyond stating that the child was four or five years old and that his education had been wholly remitted to his grandmother, the Life throws no further light on the event, and does not mention where it happened. Five years later, in 1624, the Dowager Countess was living at "her house at West Horsley," which is in the same neighbourhood, "her house" having been probably the still existing JAMES I. mansion there. She was of considerable wealth, and left money to found a college at Ghent. We shall probably not err in assuming that, in 1619, she was occupying Sutton Place, or perhaps one wing of it. If that be so, we can still point to a country mansion where HARVEY is known to have been called in consultation from London, where also he is known to have expressed his agreement with the local practitioner in the judicious diagnosis of a "continued impostum,"—probably peritonitis, and perhaps intussusception.

Annotations.

"Ne quid nimis."

THE PHYSICIAN'S INFLUENCE IN DIPLOMACY.

COMPILERS of social and political anecdote might put together an interesting and instructive volume on the share physicians have had in moulding the opinions and determining the policy of monarchs or statesmen or diplomatists to whom they were professionally attached. The published biographies of men high in official position teem with acknowledgments of what they have owed to their medical advisers, not in the matters of health only, but in the sphere of Statecraft. One of these which saw the light not so long ago—the charming "Memoirs of an ex-Minister"—contains a memorable passage in point. Lord Malmesbury, the Minister for Foreign Affairs under the Derby-Disraeli Administration, and the author of the memoirs referred to, makes particular mention of the professional visits of Dr. Fergusson—the Robert Fergusson who figures so honourably in two such diverse books as

Watson's "Practice of Physic" and Lockhart's "Life of Scott." His lordship had asked the doctor's opinion on the state of parties and the political outlook of the day, and, having got it, adds: "I fear he is right" [as undoubtedly he was], "for," proceeds Lord Malmesbury, "nobody is a better judge of public feeling than a doctor, who is constantly seeing all kinds of people." Another illustration, of a more dramatic though of a less satisfactory nature, meets us for the first time in a similar book just published, "The Diplomatic Reminiscences of Lord Augustus Loftus, P.C., G.C.B., 1837-1862." The Emperor Alexander of Russia, brother of the Czar Nicholas, inherited a good deal of the eccentric character of their common father, Paul, whose assassination is one of the most tragic incidents in the sombre page of Russian history. Alexander, it appears, had been privately informed of a conspiracy to take his life, and, acting on the information, had altered the route. He was then passing between Moscow and St. Petersburg. By shaping his journey homeward *viâ* Taganrog to the south he hoped to defeat the purpose of the conspirators. At that remote town he fell ill of "bilious fever," and in his suspicious frame of mind nothing would induce him to follow the advice of his excellent body physician, Dr. Wyllie. The doctor was reinforced by the entreaties of the Empress, but in vain. Alexander, seeming to court death, ordered a priest to be sent for, and meantime Dr. Wyllie and the Empress renewed their importunities to get him to take the remedy prescribed. This he finally agreed to do, and with the arrival of the priest renewed pressure was put upon him not to commit suicide by refusing the medicine. The priest, in fact, declined to do his part until the imperial patient acted on Dr. Wyllie's orders. To relieve local congestion leeches were applied to the head, and, after a time, the Emperor, sending for his consort and Dr. Wyllie, asked them if they were satisfied. They replied they were (for the time, at least); whereupon he tore off the leeches and by preventing their action seriously compromised his chances of recovery. The disease, in spite of the physician's efforts, had to run its course and the imperial patient died. Other anecdotes of Dr. Wyllie's association with the *vie intime* of the Russian court represent him in a more successful light, extra-professionally as well as in his medical capacity, and must, if collected, form a favourable specimen of the volume we have suggested to the compiler—a volume which might have many an interesting counterpart drawn from the experience of others of his compatriots in their *rôle* as consultants to kings and their ministers.

HAMBURG WATER.

THE results furnished by a chemical analysis of the water supplied to Hamburg admit of but one interpretation—the water is highly polluted, and it has thus no doubt afforded an excellent channel for the distribution of the disease which is causing sad havoc in the city at the present time. A sample of water taken from the mains by an ordinary tap, just as it is supplied for drinking purposes to the houses, was recently procured by Mr. J. B. Coppock, F.C.S., who submitted it to analysis, the details of which appear in the current number of the *Chemical News*. The water is described as turbid and very yellow in appearance, as slightly unpleasant to the taste, as possessing little odour and containing a small and dirty-looking deposit. Microscopic examination revealed animal and vegetable matters as well as mineral particles. The total solids amounted to 81·25 grains, the chlorine to 33·04 grains, the free ammonia to 0·0746 grain, the albuminoid ammonia to 0·0205 grain, the sulphates to 2·37 grains, and the nitrates to 1·95 grain per gallon. Oxygen consumed in fifteen minutes was equal to 0·065 grain, and in four hours to 0·24 grain per gallon. The most striking item is perhaps the chlorine. It occurs to an enormous extent and may have been derived from the chlorides in animal evacuations, as in urine, although on the other hand there is no evidence that it is not of mineral origin. The nitrites do not appear to have been estimated, neither are any observations recorded as to the behaviour of the solid matter on heating. This is regrettable, we think, as the presence of nitrites affords fair proof of the existence of putrefactive matter still undergoing oxidation, while the character of the odour evolved on heating the solid matter frequently indicates whether the contamination is of vegetable or animal origin. Cultivation in nutrient gelatine produced an abundant crop of bacteria—bacilli, micrococci and fungi—but the consumption of the water, Mr. Coppock adds, has not produced any choleraic symptoms in the case of a cat. The water-supply of Hamburg is drawn from the River Elbe. London, be it remarked, also derives her water-supply mainly from a river, and although that river has hitherto yielded water of surprising purity after suitable treatment, yet in view of the present enormous rate of increase in the population not only is this source of supply likely to prove inefficient within a few years, but, what is still worse, it will probably become less pure, in consequence of the increasing demands made upon an already overtaxed river by the present system of sewage disposal. A consideration of these facts, especially at this time, should lend fresh impetus to the labours of the Royal Commission, which will shortly resume its sittings.

MIND-BLINDNESS.

IN the last number of the *Neurologisches Centralblatt* appears an abstract of a paper by Dr. Wilbrand, in the *Deutsche Zeitschrift für Nervenheilkunde*. In this paper is given the sequel to a case of mind-blindness with hemianopia, published by the author in 1887. The completeness with which the case was recorded in the first instance and the accuracy with which it was observed give the highest value to the account which is now presented of the condition of the brain. The patient was a woman, aged sixty-three, who until the onset of her illness had been healthy and intelligent. She suddenly became unconscious, and for some weeks she remained so. When she regained consciousness she mistook animals for human beings, and her ideas as to her position in time and place were rather hazy. Even in well-known places, such as her own house and amidst her own furniture, she could not find her way about; but if she closed her eyes her power of regulating her movements was much greater. She was confused and excitable; she said that she thought "upside down," that she lead "a mechanical life," and that her sense of smell was much finer than usual. She also suffered from feelings of "explosions," which took place in her head without any noise, but accompanied by a sudden perception of light. There was no paralysis of ocular muscles and no change in the fundi; there was incomplete left homonymous hemianopia and a partial hemianopic defect in the lower half of both right fields. Inside the defective left half-fields there was a zone in which only light—not form or colour—was recognised. She read writing and printing fluently with the aid of convex glasses. She could write to dictation correctly, but in spontaneous writing she made frequent mistakes, omitting words or repeating them needlessly. Her symptoms varied but little during ten years, and she finally succumbed to an apoplectic attack within a few hours of its onset. At the necropsy the fusiform lobe on the right side was found to be depressed, and it had apparently been transformed into a loose-walled cavity which extended to the extremity of the occipital lobe. The occipital convolutions were reduced in size; the whole lobe was somewhat depressed but not softened. The hinder part of the cuneus was softened, its extremity being connected with the softened area of the fusiform lobe. The cortex of the calcarine fissure was a little altered; the precuneus was normal and so were the lateral aspects of the occipital lobe and of

the whole parietal region. On the left side there was a small cavity under the grey matter of the second occipital convolution, with a softened area in front of it, evidently an old lesion, and anteriorly this was continuous with a recent softening which had completely destroyed all the central matter of the hemisphere. It will thus be seen that the centre for the reception of visual impressions in the left hemisphere was intact, but the interruption of the subcortical associational fibres had resulted in permanent mind-blindness. On the other hand, by the destruction of the cuneus and the affection of the calcarine fissure on the right side, the function of the centre for the reception of visual impressions on that side was abolished, and as with closed eyes the recollection was scarcely impaired the symptoms of mind-blindness must be wholly ascribed to the lesion in the second left occipital convolution. The total blindness which was present at the commencement of the illness is to be ascribed to the permanent destruction of the area for visual perception on the right side and to a temporary abolition of the function of that on the left side through pressure on the fibres, which had not caused complete destruction. Dr. Wilbrand had previously suggested that mind-blindness was the result of a cortical lesion in an area in the left hemisphere, subserving visual recollection, and he confirms this by the anatomical condition which he has now described—viz., the destruction of certain associational fibres of the occipital lobe. On reviewing all the circumstances of the case under consideration, he is of opinion that the following propositions may now be laid down: (1) That mind-blindness may arise through destruction of certain connecting fibres—for example, by lesions which lie close under the surface of the first and second occipital convolutions; (2) that symptoms of permanent mind-blindness, with complete homonymous hemianopsia or with hemiachromatopsia alone, are due to lesions in each occipital lobe affecting either the cortex or underlying fibres; (3) that the area for visual impressions and the area for visual recollections of one and the same hemisphere are in direct connexion; and (4) that if, when the visual area in each hemisphere is affected, the area for visual recollection in one hemisphere is unaffected, the disturbances of optical perceptions vanish when the eyes are closed. The case, it will be seen, is an extremely important one, and it will no doubt be the means of throwing light on many hitherto obscure problems.

VACCINATION AND SMALL-POX MORTALITY.

IT is a regrettable fact in the vaccination controversy that the opponents of this salutary measure should in their zeal to depreciate its value lose sight of essential principles. Thus in a letter which appeared in *The Times* of the 19th inst. Major-General Phelps of Birmingham cites the fact, which he says he has verified, that each of the four fatal cases of small-pox occurring amongst adults in that town last year were of vaccinated persons, but that this fact was not noted on the certificates of death. We agree with him that such an omission is to be deplored, but his own letter shows that the evidence of vaccination was obliterated by the severity of the variolous eruption in at least two of the cases. Still, if he has been able to procure unequivocal evidence—no easy matter, especially for a prejudiced inquirer—from the relatives of the deceased, it might have been equally possible to gain this information at the time of the illness. It should not be inferred that because the fact of vaccination is not mentioned on the certificate these fatalities would be placed amongst the "unvaccinated class." There is a sort of feeling amongst the opponents of vaccination that the interests of truth are not regarded by the upholders of the practice! They also seem to think that the mere fact of vaccination having been performed at all is considered by the profession to be absolutely protective against fatal small-pox during the whole of life. If the former can show a mortality from this disease amongst the efficiently vaccinated at all approaching that amongst the nominally vaccinated and the unvaccinated, then, indeed, we may begin to question the efficacy of the practice. This demonstration *cannot* be made. Vaccination, efficiently performed and reinforced by revaccination, is—in the healthy—almost absolutely protective against the ravages of small-pox. That has been proved up to the hilt. But it has also been shown that the conditions for producing so certain an immunity are not invariably observed—nay, even that unscrupulous persons encourage the poor and ignorant to obey the law in the letter, but to obviate the effects of vaccination by artifice. Year by year in this country the numbers of the unprotected are increasing, and they include not only the really unvaccinated, but the nominally vaccinated also. Lastly, mortality from small-pox, as from all infective diseases, is influenced by the previous habits, health and age of the subject, and when all such favouring conditions for severity are struck off from each column of the vaccinated and unvaccinated alike, the disproportion of fatalities and, indeed, of severity of attack between the two classes is so evident that no one not absolutely blinded by prejudice can fail to perceive where the safety lies.

LATER STUDIES OF TIZZONI AND CENTANNI ON THE PROPHYLAXIS OF RABIES.

To combat the infection of rabies, even in its pronounced stage, the Bolognese pathologists, our readers will remember, employed the serum of the blood of rabbits which had received such immunity from rabies as to withstand without injury repeated inoculations of the virus. The active substance of the serum may be precipitated by alcohol together with other albuminoid bodies, and the precipitate so obtained, when redissolved in water, shows itself capable of neutralising the virulence of the medulla of a rabid dog. Professor Tizzoni, in concert with Dr. Schwarz, had already sought to ascertain if the alcoholic precipitate manifested on the organism the same beneficent virtues as the directly injected serum. His results, however, as then obtained were too uncertain and could not claim a definite character, all the more that the method of inoculation had in more than one particular to be brought to greater perfection. To solve the question he made use, in recent researches, of serum taken from animals which had resisted repeated inoculations, hypodermic and intravenous, of the virus, the serum being combined with ten volumes of alcohol and the precipitate obtained being dried and desiccated. To ascertain if the solid substance separated from the serum possessed immunifying (*immunizzanti*) virtues, direct inoculation of the rabid virus was practised on the sciatic nerves of rabbits, and eight days after this inoculation the animals were further inoculated with an aqueous solution of the precipitate. The immunifying action of the precipitate was expected to manifest itself after the virus had invaded the central nervous system and after the first symptoms of the malady had appeared. The results, checked by repeated experiments, showed in every case that the animals inoculated with the precipitate withstood the infection admirably, while the animals which had been inoculated with the rabid virus, but had not been subsequently "vaccinated," died within twenty days of rabies. Which proves that, in analogy with the findings of Professor Tizzoni and Dr. Centanni with the anti-toxine of tetanus, by means of absolute alcohol we can get a precipitate which possesses the same immunifying power as the serum, for which, in fact, it can be substituted. The importance of the preceding fact, scientifically and practically, can scarcely be exaggerated. It confirms the immunifying virtues of the serum, it introduces us to a new property of the active substance contained in the serum,

and finally it admits of our getting this substance in a form which renders it capable of being kept easily and for an indefinite time. It is thus possible to collect by little and little from the serum of immunified animals considerable quantities of the active substance, so as to have it at hand in case of need; it is also possible to pack and forward it to places at a distance. Its mode of use, moreover, is of the simplest. Professor Tizzoni and Dr. Centanni concluded their interesting communication (made to the R. Accademia dei Lincei of Rome) by the avowal that they could not pronounce exactly on the minimum dose of precipitate necessary to cure a rabbit affected with rabies; in their experiments they say that from the desire to obtain positive results they perhaps exaggerated the doses required to produce immunity. In any case, even if this minimum dose were established, it would not have been possible, by simple proportion, to draw deductions applicable to the human patient. With respect to the organism of the rabbit, that of man is so differently conditioned for the infection of rabies that only from actual proof gained from the experience of the human patient can we hope to ascertain the effective minimum dose of the immunifying substance.

ACTION OF ALKALOIDAL POISONS ON LEUCOCYTES.

DR. E. MAUREL of Toulouse has performed an important series of experimental researches on the action of poisons on leucocytes. The results are published in recent numbers of the *Bulletin de Thérapeutique*, and an abstract will be found in the *Boston Medical and Surgical Journal* of August 11th of this year. With regard to strychnine, he finds that the toxic action of the alkaloid on the animal economy is in the ratio of its destructive action on the leucocytes. "In poisoning by sulphate of strychnine, the death of the leucocytes and that of the animal are simultaneous." The quantity of strychnine necessary to kill immediately all the leucocytes in 100 grammes of human blood has been found to be 5 centigrammes; this amount of blood may be said to represent 1 kilogramme of the weight of the body. A much smaller quantity of strychnine—2 centigrammes—is equally fatal to the leucocytes in 100 grammes of blood, though several hours are required for their complete destruction. The immediate effect of the poison on the white corpuscles is to arrest their spontaneous activity and fix the elements in the spherical state. In investigating the action of atropine on the white corpuscles Dr. Maurel found here, too, a complete concordance between the quantity of toxic material necessary to kill the animal and that necessary to kill the corpuscles. Struck by this concordance, which suggests a special *rôle* of the leucocytes in death by this toxic agent, Dr. Maurel experimented with the hare—an animal which eats belladonna with impunity—to ascertain if the leucocytes of the hare's blood are affected by atropine. He found that this alkaloid was almost without effect on the leucocytes of the hare. His conclusions are formulated as follows: In the dose of 5 centigrammes or more sulphate of atropine instantly kills the leucocytes contained in 100 grammes of human blood. In the dose of 2 centigrammes these elements can live but a few hours, and from the moment of contact they present sensible modifications in their activity and in their form. In the hare, on the contrary, the leucocytes can live in a solution of 2 grammes of atropine to 100 grammes of blood, and perhaps in a stronger solution. Lastly, considering the concordance between the quantity of sulphate of atropine necessary to kill a man and that which suffices to kill the leucocytes of human blood, or impress upon them important modifications, considering, moreover, that the immunity of the hare is closely associated with the immunity of its leucocytes, Dr. Maurel is led to the conclusion that it is probable that the leucocytes have a principal part to perform in poisoning by that alkaloid. Similar investigations relative to pilocarpine have shown that it takes 10 centigrammes of that substance to instantly kill all the leucocytes in 100 grammes of human blood; 5 centigrammes will kill them in a few hours. In another series of experiments Dr. Maurel investigated the action of cocaine on the white globules, and he concludes that death by cocaine is the consequence of the death of the leucocytes or of modifications which the latter sustain under the influence of this agent. The quantity of cocaine which is immediately fatal to the leucocytes is 1 per cent. of the quantity of the blood or about 1 gramme per kilogramme of the weight. Thirty times as much cocaine is required to kill an animal when this salt is taken by the mouth as when it is injected into a vein. In death by intravenous injections of toxic solutions the death may be caused by the leucocytes suddenly killed being swept along the blood stream and acting as emboli. These elements, in fact, after their death, take the form of rigid discs, the long diameter of which exceeds by one-third at least the calibre of certain capillaries.

"THE POOR AND SHAM DOCTORS."

THE *Morning Advertiser* reports an inquest under the above heading on the body of a child, in whose case a "doctor" was fetched by the father, who placed a tube on the chest and said it "was not dead." He then said he was not "the doctor," "the doctor was away." On hearing that he purported to come from "Dr. Morrison's" in Cannon-street-road, the coroner, Mr. Wynne E. Baxter, said, "I should think he is away; he has been dead and buried a long time." This disclosure led to some uncomplimentary remarks on the kind of assistants kept by some medical men. The foreman of the jury said the question was one of great importance to the working classes and should be reported to the Medical Council. Dr. George Hill Bartlett, who was called to see the child after the visit of the gentleman who said "he was not a doctor," expressed the belief that the child was dead in the first instance. The coroner agreed to report the case to the Medical Council. The question, as the foreman says, does deeply affect the working classes, but they have the remedy in their own hands. Every respectable working man should have an understanding as to medical attendance with a neighbouring practitioner. In every neighbourhood there are medical men who are willing to meet the case of the working classes on reasonable terms. The Medical Council has its own duties, however, in regard to the question of covering.

CEREBELLAR CYSTS.

IN the *International Journal of the Medical Sciences* for August of this year is an important paper by Dr. R. T. Williamson on this subject, with special reference to the occurrence of simple serous cysts in the cerebellum. He gives the details of two cases presenting the ordinary clinical features of cerebellar tumour, in each of which the necropsy revealed the existence of cysts in the cerebellum, which appeared at first to be simple, and only on very careful examination of numerous parts of the cyst wall were they found to be really the result of new growth—in the one case gliomatous and in the other sarcomatous. Dr. Williamson, while not denying the possibility of so-called simple or serous cysts originating in other ways, is inclined to think it more probable that these cysts have been tumours in which the cystic degeneration has been so marked and so extreme that the whole of the tumour growth has disappeared, or only so minute a portion has remained that it has escaped detection. His reasons for this view are briefly as follows:—That the clinical history in such cases is the usual one of tumour, and that the liability of intracranial tumours to undergo cystic degeneration, as is well known, is very great. In some cases also what have been regarded as

simple cysts have been shown on very searching examination to contain in the wall a small mass of new growth, and this mass in one case was so small as to measure no more than $\frac{1}{25}$ in. by $\frac{1}{16}$ in., a considerable portion of which consisted of bloodvessels. Further, Dr. Williamson urges that, if the cystic degeneration can be so marked that only a patch of new growth of these minute dimensions may remain, it seems not improbable that in some cases the whole of the tumour may disappear and only a cyst remain; or the portion left may be so small as to escape detection. The occurrence of such cysts in the cerebellum suggests the possibility of treating some of the supposed cases of cerebellar tumour by aspiration and drainage. Operations for the removal of cerebellar tumour are notoriously unsuccessful on account of the difficulty of the localisation and of the operation; and if there is any reasonable hope that a cyst is present, naturally the treatment suggested would be adopted. Nor is there any reason why such treatment should not be extended to the cerebrum, as was actually done in a case which Dr. Williamson quotes as recorded by Oppenheim and Köhler. This was a case of Jacksonian epilepsy in which at the operation a cystic glioma was found in the right motor area. The superficial part only of the growth was removed and the cavity drained, with the result that the left arm, which had been paralysed, regained power, and the patient otherwise improved so much that he was discharged in good health three months after the operation.

THE ISOLATION OF DIPHTHERIA IN BOOTLE.

WE regret to see that a proposal by the chairman of the health committee of the Corporation of Bootle has been rejected in the Town Council by a majority of one. We regret this the more as the opposition to so reasonable a proposal was led by a medical man, Mr. Wills, who moved an amendment that, in the opinion of the Council, the pavilion was unnecessary. In the course of his speech he characterised the report of the resident medical officer as "sensational," complained that the time of the Council should be taken up with such unnecessary propositions, and wound up by saying that diphtheria was not infectious. The chairman then disclosed that a diphtheria patient admitted into the fever hospital had taken fever and died. But Mr. Wills obtained the victory by one vote. The triumph is an unsatisfactory one and ill-founded. It is a grievous thing to take a patient with one infectious disease into a hospital meant for another, and to convey the second infection to him. To say that diphtheria is not infectious but contagious is to draw an unpractical and academic distinction. Besides, the question is not open for discussion. It has been settled by Act of Parliament, which has defined certain *infectious* diseases, of which diphtheria is one, and a very deadly one, which should be isolated as much as any disease of which we know. We venture to hope that Mr. Wills will reconsider his action on this very serious matter.

FLOWER CULTURE AMONG THE POOR.

WE lately touched upon the movement, now extending in our great cities, which has for its object to sweeten and brighten the bitter and sombre lives of our toiling masses, and we indicated more than one direction in which it had already resulted in good. The flower culture it seeks to encourage must, indeed, bring with it many more blessings than the moral and intellectual elevation and refinement it inspires, and among these the practical knowledge it tends to give of plants, their characters, their virtues, their uses, and also of their dangerous properties, is by no means the least. How often does ignorance of the nature and qualities of fruits and seeds, roots and leaves, incur illness and even death when these are incautiously tasted or eaten in field or wood or byway? How often are not symptoms of the most alarming, even fatal, kind induced by the consumption of non-edible mushrooms, or by mistaking Aconitum Napellus (monkshood) for horse-radish? The other day five children narrowly escaped poisoning by eating the seed-pods of laburnum, and, almost in the same breath, we hear of fifty-eight boys in an industrial school in the south of England chewing laburnum roots for stick liquorice, and shortly thereafter being treated in hospital for the symptoms of narcotic poisoning. A garland of laburnum flowers worn round the neck has been said to produce headache, and a correspondent tells us of a boy mistaking and eating laburnum seeds for green peas, with the result that but for prompt medical intervention he would have died. The knowledge by which such risks are avoided is one among the many advantages that must flow from the plant and flower culture now philanthropically promoted among the humble denizens of town and village and ought to be still further developed by the action of our Board schools in following up the initiative started in city court and street alley. We must not expect too much from our educational system in its present state, nor may we hope to find botany included in the programme of our elementary schools. But surely some practical familiarity with the names and characters and properties of our wild flowering or fruit-bearing plants might be given at that stage of education, in supplement of the knowledge now eagerly sought after—as we have seen—among masses of the population to which the joy of window-gardening was, till lately, but a dream.

GLASGOW UNIVERSITY CHAIR OF SURGERY.

THERE is a maxim in the Koran that "a ruler who appoints any man to an office when there is in his dominions another man better qualified for it sins against God and against the State." The principle of this maxim has unfortunately not always been followed in the appointments made to the chairs in the Scotch Universities. We need not refer to several in which political or religious opinions were apparently recognised as requisites for these appointments rather than the candidates' knowlege of the subjects they were called upon to teach, or their contributions to the advance of their special departments. Fortunately the vacancy caused by the lamented death of Sir George H. B. Macleod has been filled by the appointment of a Glasgow surgeon whose claims for the post cannot be excelled. A distinguished student and graduate of the University and a former assistant of Professor Macleod, Dr. William Macewen has for long been regarded by the profession in Glasgow in the west of Scotland as the future Professor of Surgery at Gilmore Hill. Dr. Macewen was formerly lecturer on Clinical Surgery at the Royal Infirmary, Glasgow. He has been laboriously working there with his students, not only as a clinical teacher, but in enunciating the principles of surgery, and for many years sacrificing mere money-making to the advancement of surgical knowledge by his numerous clinical and pathological observations in the wards and post-mortem theatre as well as in the laboratory. As a result of his continued labours his name will for ever be associated in British surgery with osteotomy, transplantation of bone, brain and spinal surgery &c. Referring to his paper read before the Royal Society in 1881 in regard to the unique case of bone transplantation, we wrote: "Great interest attaches to this case, which is the first of the kind recorded, and Dr. Macewen is entitled to warm praise for devising and carrying to such a successful issue the many details necessarily involved in its management." Dr. Macewen's name is perhaps best known throughout the world in connexion with osteotomy. His book is the standard work on the subject, and has been translated into most European languages. He is about to publish in con-

nexion with his researches on Brain Surgery an excellent and most complete atlas of Sectional Anatomy of the Head, which will throw considerable light on our present ideas of the relation of parts within the cranium and prove of great service in enabling surgeons to localise lesions which antiseptic surgery can relieve. We understand that Dr. Macewen was the first to be offered the Professorship of Surgery in the Johns Hopkins University, Baltimore, but he did not accept that distinguished honour. In 1888 at the meeting of the British Medical Association in Glasgow the ovation he received when he delivered the special lecture on his work in connexion with Brain and Spinal Surgery will not be readily forgotten. In acknowledgment of this work his *alma mater* conferred on him the honorary degree of LL.D., and now she is to be congratulated on his appointment to the Chair of Surgery.

"ARE MIRACLES UNNATURAL?"

IT would be no simple matter, if indeed it were not absolutely impossible, for us to succeed where so many have failed, and to settle the vexed question as to how far miracles are or are not the effects of natural agency. In approaching the subject we are met first by the difficulty of evidence—viz., how far we may trust to the accounts given of reputed miracles. Doubtless these are in almost every known case capable of misrepresentation and especially of exaggeration. The mental attitude of expectant onlookers lends itself to this, and we should not therefore be disposed to admit in such cases any testimony but that of entirely dispassionate and accredited witnesses. Again, there is the question whether, if a miracle has occurred (the term is suggestive merely of a remarkable occurrence and not necessarily of something supernatural—that is to say, unnatural), it is not still permissible to ask if the method carried out in this wonderful occurrence did not consist in a stimulation, abnormal it might be, of natural activities. Wonders which fall within this category happen daily and hourly. They are true miracles. They are also natural. They exhibit, we might say, the mode of operation commonly preferred by the Divine Being. Therefore we would again suggest that there underlies the whole series of miracles a similar mechanism, perhaps undiscovered but always natural, and therefore more, not less, characteristically divine.

THE FUNCTIONS OF THE STOMACH AFTER GASTROSTOMY.

SOME important investigations as regards the functions of a stomach which has been subjected to gastrostomy have been made by Professor Ewald. His results are published in the *Deutsche Medicinische Zeitung* of March 24th.[1] In the case described by Professor Ewald the peptic activity of the stomach was entirely destroyed and the principal processes of digestion took place in the intestines. The movements of the stomach were lessened and a certain amount of stagnation of the gastric contents occurred in consequence of adhesions. Professor Ewald has therefore suggested that the fistula should be made near the pylorus, so that the food, or at least some of it, can be introduced by a tube directly into the duodenum. So long as the patient's strength is maintained gastrostomy cannot be strongly recommended. The prognosis of obstruction due to pressure from without is much the same as that due to tumour, unless the stricture be due to syphilis. The stricture may be caused by ulceration in the lower part of the œsophagus; this lesion is probably due to corrosion by the gastric juice, and occurs principally in anæmic subjects. The age is very important. Unlike cases of carcinoma, attacks of pain are noted first and obstruction later. The patient upon whom Professor Ewald made his observations was a woman aged twenty, who had previously suffered from gastric symptoms, and then had enjoyed an interval of health lasting some months. About one year before the patient came under observation the pain began again, followed by difficulty in swallowing. A bougie could not be passed. There was wasting; no history of syphilis could be obtained. Gastrostomy was performed by Professor Oppenheim, and the opening into the stomach was made at the end of five days. The patient gained rapidly in weight, but the constriction did not relax sufficiently to permit of the passage of a bougie. The fact of dilatation of the stomach, with delayed passage of food favoured the diagnosis of a cicatrised ulcer near the pylorus as well as in the œsophagus. Through a speculum the cardiac end of the stomach appeared too red and the pyloric end too pale. The sound could be passed five inches upward and six inches downward, but it could not be made to pass into the gullet or duodenum. The pressure in the moderately filled organ was estimated by Professor Ewald at from 30 to 35 millimetres, and with moderate internal compression at from 80 to 100 millimetres. The pressure was increased by applying the faradaic current to the abdominal wall, but not by applying the current to the inside of the stomach. This was due to the presence of adhesions. Salol excretion was delayed, salicylic acid appearing in the urine two hours and a half after food, this being due to the dilatation of the stomach. If the stomach were washed out the night before, a fluid containing free hydrochloric acid and possessing peptic properties could be obtained on the following morning. The patient survived the operation five months.

[1] Abstract in the Journal of the American Medical Association, July 30th, 1892.

MEDICINE AND THE STATE.

THERE can be little doubt that a sense of personal indebtedness has had something to do with forming in the mind of Mr. Gladstone that favourable opinion of the medical profession which he is known to entertain. We must, however, look for some other source of inspiration if we would rightly appreciate his latest reference to this subject. When we find him saying that the profession is in a state of absolute advance owing to the progress of its science, we recognise no more than the acknowledgment of an evident fact. When again he speaks of advance referable to particular features which connect that onward movement with the progress of modern civilisation, we note that he has been duly observant of the silent evolution which is daily recasting into newer forms the relations of the nation with its medical advisers. It has been reserved for a comparatively late period to witness the gradual absorption of much that is medical into the science of Statecraft. No longer do we think of this latter faculty as concerned merely with the maintenance of peace, commerce and justice between different communities. These purposes continue, but we have added to them much more that has to do with individual and public health and happiness. Politicians of less sensitive intelligence than the aged Premier, who is himself a monument of personal hygiene, would do wisely to reflect upon the character, duties, and legitimate public utility of the power which medicine exercises in the government of states.

THE MECHANISM OF BRAIN INJURIES.

IN the last number of *Brain* Mr. Alexander Miles discusses this subject with reference chiefly to the causation of the condition which follows concussion. The subject has been investigated experimentally and elucidated by a consideration of the function of the cerebro-spinal fluid and of the various theories of concussion which have been brought forward. The effect of concussion on the heart and the general circulation, as well as on the circulation in the brain, has been considered and the important rôle which the corpora restiforma are believed to play in the production of vascular disturbance is

discussed. Details of the various experiments are given and the resulting post-mortem appearances described. They are such as to lead Mr. Miles to lend his support to the theory of the important part played by the cerebro-spinal fluid in the mechanism of cerebral concussion. His conclusions, as given in the summary at the end of his paper, are that the group of phenomena commonly spoken of as "concussion of the brain" result from temporary anæmia of the organ consequent upon stimulation of the restiform bodies and perhaps other structures in the region of the bulb. The stimulation of these parts is supposed to be effected by the wave of cerebro-spinal fluid which rushes through the aqueduct of Sylvius and the foramen of Magendie and from the subarachnoid space of the brain to that of the cord when a severe blow is dealt over the skull. Such a wave will naturally disturb the equilibrium of the nerve cells throughout the central nervous system, and the hæmorrhages found throughout the brain substance and on its surface are to be ascribed to the recession of the cerebro-spinal fluid which supports the bloodvessels of the brain. He is further of opinion that the petechial hæmorrhages found in cases of so-called concussion are not to be regarded as the proximate cause of the symptoms of that condition, but rather as an index of the force producing the injury.

DRUNKENNESS AMONG WOMEN.

THE *Daily Telegraph* devotes a column to the discussion of what is called "A National Shame: Drunken Women." No one who has his eyes open can fail to see that women are fatally losing modesty in the way in which they enter public-houses. Our contemporary quotes evidence from coroners, magistrates, police-court missionaries and others, all with one consent agreeing that drunkenness among women is on the increase. Young women are not excepted, but included in the statement. Mr. Wynne Baxter has said that the question of drunkenness, directly or indirectly, enters into half the inquests he holds. In 1891, in London, 8373 women were taken into custody for being "drunk and disorderly." Of 2554 women appearing at Clerkenwell, 95 per cent. were the victims of drink. Magistrates and missionaries are convinced that prison does nothing to benefit drunken women, and that they should have the power of dealing with them quite differently from ordinary criminals. This is quite obvious, but we must aim at measures which check the creation of drunkards in homes and streets.

THE BIRKBECK PANIC: A MANIACAL EXCITEMENT.

THE saying that "apprehension kills and apprehension cures" is of the nature of a truism, for apprehension caused the Birkbeck depositors to withdraw their money and apprehension (of otherwise losing it) caused them to replace it. Panic arises from a more or less unreasonable disturbance of that sense of security which ought to rest in all social institutions, whether commercial or structural. The sanctions of civilised life have their highest expression in this sense of security, which is totally wanting in the methods of savage existence. But while, on the one hand, a sense of security is regarded as characterising the body politic, individuals have, on the other, to be careful to cultivate the faculty of self-control which forms, as Herbert Spencer has said, a chief distinction between the human being and the brute. The "possession" of the swine by a legion of devils and their subsequent self-destruction serve well to illustrate the outcome of muscular activity where this governing faculty is conspicuous by its absence Panic in human beings is the counterpart of this condition of things; and it is neither more nor less than a maniacal excitement with, among other symptoms of derangement, loss of appetite, watchful and sleepless nights and a total incapacity to think soberly on any subject, the whole mind being absorbed by the one idea which swamps all its ordinary activities and diverts them from a normal, healthful flow into an insane rush of selfish impetuosity. The evils of such a rush as that upon the Birkbeck Bank are not finished when the panic has been lulled, as in this instance, by the evidence of stability and safety. The injurious effects upon individuals are not easily surmounted, and the medical profession is only too well aware of the serious extent to which the resulting nervous exhaustion and prostration are now beginning to make themselves felt among those directly or indirectly concerned in the foolish and needless excitement. The full and ultimate chronicle of such panics is written in the case-books of our lunatic asylums; and although we are well aware of the futility of advice in dealing with actual panic, we nevertheless feel it to be our duty to issue a note of warning on the subject, and to impress upon all the great necessity of cultivating and exercising in every walk of life and under every circumstance in life the all-important moral attributes of self-control, self-restraint, self-government.

THE MUSCULAR SENSE.

AT the eighteenth annual meeting of the American Neurological Association, held in New York in June of this year, an interesting paper was read by Dr. G. F. Preston of Baltimore on some Contributions to the Muscular Sense.[1] Dr. Preston thought that it might be considered definitely proved that the muscular sense, or at least one part, was composed of afferent impulses which were entirely independent of general sensibility. The next step that suggested itself was the starting-point of these afferent impulses. Clearly, as several observers had noted, the muscles alone—that was, sensations coming from them—could not give us the information we required as to the position of our limbs. Undoubtedly the tendons, the joints and their coverings, and perhaps the bones, all aided in producing the posture sense, or rather from these proceeded nerve fibres conveying posture-sense impressions. The loss or impairment of posture sense was an almost constant symptom in sclerosis of the posterior columns of the cord. It seemed probable to Dr. Preston that the fibres conveying posture-sense impressions passed into the restiform body, thence to the cerebellum and on to the great brain. In three cases of tumour of the cerebellum in which necropsies had been made he had observed loss of posture sense without impairment of general sensibility.

FEVER IN LONDON.

THE embarrassment of the Metropolitan Asylums Board with the extension of the epidemic of scarlet fever is very great, and, judging from previous epidemics, more pressure is yet to be expected. As early as May 14th the Ambulance Committee reported the number of cases to be larger than on the same day in any previous year. Out of 3744 patients under treatment, no less than 3353 were cases of scarlet fever. The ages of the patients are instructive. Out of 7794 fever patients admitted to the Board's hospitals between Jan. 1st and Sept. 12th, 74 per cent. were between one and ten years of age, 16 per cent. between ten and fifteen, and only 10 per cent. over fifteen. The Asylums Board have reached the limit of their accommodation and have been obliged to decline a large number of cases. The chairman of the Board, Sir Edwin Galsworthy, at the meeting on the 17th inst., severely and with much iteration reflected on the Local Government Board for its "lamentable" delay and indecision in agreeing to the proposals of the managers for plans for meeting the unprecedented number of cases. The public will await with anxiety the defence of the Local Government Board. Meantime it appears to us as if this wholesale reception of

[1] Boston Medical and Surgical Journal, Aug. 25th, 1892.

cases from all classes of the community was a mistake. It is interminable and it is of questionable utility. Anybody, in however good a house, who does not like the care, cost and trouble of isolating a case of scarlet fever may send it to the hospitals which were meant originally for the poor. The law has been altered so as to allow of this without the discredit of pauperism and for the bare cost of maintenance. Is this alteration of the law justified by the results? It seems a time for questioning whether the system is diminishing the number of cases, as it certainly seems diminishing the independence of the people. Of course we entirely approve the isolation of cases occurring in the houses of the poor.

THE CAPE MEDICAL ACT.

THE medical profession is petitioning the Cape Legislature for an amendment of the Act lately passed, and very reasonably so. One claim in particular, leaving the practice of midwifery to uncertificated women without pain or penalty, but subjecting certificated midwives and medical men to penalties for breaking regulations to be made by the Medical Council, gave great and just offence to the profession who claim, as educated and qualified practitioners, to be a law to themselves. It is said to have the effect of hindering medical men from taking obstetric practice, and may easily tell badly against lying-in women by leaving them to be attended by the unqualified and the ignorant. We would point out to Mr. Sauer and other promoters of this Bill that such penalties are for those who are under no obligation of honour and position. Medical men have their own reputation and that of their profession to maintain, and may be trusted to take those precautions which science and self-interest alike dictate.

CHOLERA NURSING.

WE would direct attention to an excellent little lecture to trained nurses by Dr. Heron, physician to the City of London Hospital for Diseases of the Chest, on some important points in cholera nursing, which has been published by the Royal British Nurses' Association. The lecture was given on the 1st and 5th of the present month to over 400 trained nurses. After referring very briefly to the history of the disease and giving a graphic description of its symptoms, the lecturer states in clear and precise terms what is known about it with direct relation to the practical bearing which Koch's discovery of the comma bacillus, as its cause, has upon our methods of dealing with persons suffering from cholera. From this point of view the lecturer lays down with much perspicuity the precautions that have to be taken, the disinfectants to be used and the method of using them, the dresses that should be worn, and the course which should generally be followed in regard to the patient and the nurse.

"ELECTROPATHIC" ADVERTISING.

IT is with painful surprise that we find the name of a member of our profession appended to a highly eulogistic letter addressed to the head of a firm that is now deluging the British public with advertisements of its wares, which are alleged to be panaceas for almost every ill. The medical practitioner in question is an M.D. of St. Andrews, a Fellow of the Edinburgh College of Physicians, a Licentiate of the London College, a Member of the College of Surgeons of England and a Licentiate of the Society of Apothecaries. Our contemporary, the *Electrical Review*, in its issue of this week, not only exposes the fallacies underlying the "experiments" upon which this precious recommendation was penned, but also speaks in no measured terms of the wrong done to the profession and the public by this advocacy of an "electropathic" appliance. We may leave the electrical experts to judge of the scientific value of the grounds for that advocacy; but we cannot, for the honour of our profession, refrain from expressing our strong disapproval of the uses to which the physician in question has applied his knowledge. He cannot fail to be conscious of the infinite harm that may accrue from one in his position giving such warm commendation to a method of treatment that is so closely bound up with quackery. Nor could he doubt that an opinion so directly addressed to the firm would be made the most of, and that his *litera scripta* would be sent broadcast through the land in support of a speculative enterprise which feeds on the ignorance and folly of the multitude.

THE PUBLIC HEALTH OF ITALY.

AN Italian correspondent writes under date the 18th inst.: "La Direzione Generale di Sanità, having been informed of the reports in American and French journals as to the occurrence of cholera cases at Naples, gives a categorical denial to such reports. The public health at Naples and in the Island of Capri, as well as throughout the Italian kingdom, is exceptionally good; above all, there has not been verified a single case of any malady which can awake the slightest suspicion of the presence of cholera. This satisfactory result is mainly due to the steady, thorough and effective surveillance practised at the frontier, without causing any inconvenience to the traveller. Only articles of personal use and actually soiled were subjected, and that immediately, to the disinfecting process."

SCARLET FEVER AND MILK.

A SOMEWHAT sharp outbreak of scarlet fever is reported at Leyton in Essex. It has transpired that most of the sufferers were supplied with milk from a single dealer who obtains his milk from Ongar. It is further reported that at a farm at Ongar, from which this dealer obtains his milk, scarlet fever is prevalent in the family of the farmer. Urgent and careful inquiry into this outbreak will doubtless be made without delay.

SOME HORRORS OF QUACKERY.

THE old proverb "any port in a storm" has often found practical illustration in the empirical treatment of disease. Time was when even regular practitioners in the art of healing included in their professional armament, along with many simple remedies of real value, other matters the very mention of which might almost suffice to engender illness. We may feel thankful that we have now entered upon a later and more scientific era, and that such extraordinary drugs as weasels' gizzards, does' hoofs, snails and other even more repulsive horrors do not now find a place in any pharmacopœia. There still exists, however, a species of medical folk-lore, and some of its prescribed wisdom available for use in illness is of the most remarkable kind. Times of panic, by throwing a population to some extent on its own resources for treatment, are apt to create a demand for these survivals of a dark age. This happened lately in Germany where a toad cooked with much care was swallowed as a cure for cholera. As to the result we are not informed. Most of us would probably choose to suffer rather than thus attempt our own relief. One can easily understand how such remedies as these have gained their favourable reception among ignorant persons. Used first, in all likelihood, in some case of illness mistaken for an incurable disease, the nostrum has been followed by spontaneous healing, and has carried the stolen credit and the faith which goes with reputation to other sick bedsides, sometimes with like spurious results. It cannot be doubted that some such confidence in the horrors of empiricism lingers amongst our own poorer population, especially in country districts. In view of this fact the practice lately adopted by

local vestries of inculcating active sanitary measures as the true preventive of infection and impressing the necessity of obtaining prompt medical aid cannot be too highly commended.

SMALL-POX IN THE PROVINCES.

THERE have been some fifteen cases of small-pox reported at Pateley Bridge in Yorkshire and three persons are to be prosecuted for failing to notify the disease. The rural authority are endeavouring to secure an old workhouse building as an isolation hospital. Small-pox is also reported to be spreading in Manchester, where, however, extra facilities for vaccination and revaccination are being offered to the public by the authorities concerned.

CHOLERA AND CLEANLINESS IN RUSSIA.

THE article on this subject in the current issue of the *Fortnightly Review* affords a good deal of information about what may be termed the internal economy, social life and condition of the Russian population. The picture presented to us is a most unsatisfactory one in every way, and we hope that matters are not, after all, quite so bad as they are painted. The writer says the plain truth is that, from a hygienic point of view, there is not a sound spot in the empire; food, water, air, clothing, houses, streets are all contaminated to such a degree that a Russian newspaper lately remarked that a century of effort would not suffice to bring about a perceptible improvement.

FOREIGN UNIVERSITY INTELLIGENCE.

Dorpat.—The chair of Internal Medicine, vacated by Professor Unverricht, has been filled by the appointment of Dr. S. M. Vasilieff, editor of the Russian journal *Meditsina*.

St. Petersburg (*Medico-Chirurgical Academy*).—There are at least a dozen candidates for the chair of Special Pathology and Therapeutics, vacant by the resignation of Dr. Manassein, editor of the *Vrach*, amongst whom may be mentioned Professors Kurloff of Tomsk and Afanasieff of St. Petersburg.

DEATHS OF EMINENT FOREIGN MEDICAL MEN.

THE deaths of the following distinguished members of the medical profession abroad have been announced:—Dr. Anders Anderson, formerly Professor of Midwifery and Gynæcology in the Carolin Institute, Stockholm. He was also at one time President of the Swedish Medical Society. He was seventy years of age.—Dr. Deck of Laisheff, in the Province of Kazan, a well-known cholera district medical officer, at the age of fifty-three.

IN connexion with the opening, a few days ago, of the temporary small-pox hospital at Warrington, a circumstance occurred calculated to direct attention to the necessity, during the prevalence of an epidemic, of increased care in ascertaining the reality of the death of any patient. An infant, three weeks ago, was supposed to be dead from small-pox, and hasty instructions were given to an undertaker to supply a coffin. In the meantime the child was placed in a shell to be taken to the mortuary preparatory to burial. Before, however, the preliminary steps attending inhumation were completed the infant began to show signs of animation, and it was not until some hours afterwards that the actual demise took place.

MR. G. Q. ROBERTS, M.A. Oxon., has been appointed House-Governor of the London Hospital, in the place of Mr. W. J. Nixon, who has resigned after forty-six years' occupancy of that post. The combined offices of house governor and secretary will now be held by Mr. Roberts.

THE patient on whom Dr. James Murphy performed gastrorraphy at the Sunderland Infirmary on the 9th inst. died on the 19th inst., thus having survived the operation ten days. After having rallied from the shock of the operation she continued remarkably well till the 17th, when she became very much exhausted and gradually sank. On post-mortem examination the abdomen was found to be quite dry and the wound in the stomach absolutely air-tight, having contracted an adhesion with the liver, but it was not cicatrised, and immediately opposite on the posterior wall of the stomach was another ulcer the size of a sixpence, in which the mucous membrane had been eroded, but the peritoneal covering had been strengthened by an adhesion to the pancreas.

DR. ADAMI, Fellow of Jesus College, Cambridge, and formerly of Owens College and of the Manchester Royal Infirmary, has been appointed Professor of Pathology in the University of Montreal, Canada.

THE Queen has been pleased to appoint Alexander Ogston, Esq., M.D., Regius Professor of Surgery, University of Aberdeen, to be Surgeon in Ordinary to the Queen in Scotland, in the room of Sir George H. B. Macleod, deceased.

AN anonymous donor has presented a Bank of England cheque for £1000 to the Essex and Colchester Hospital. A gift of £500 has also been made anonymously to the fund for providing a public park for Colchester, and a similar sum has been given by Mr. S. F. Harnard towards the erection of a public library.

THE Queen has approved the appointment by Sir George Trevelyan of Dr. William Macewen to be Regius Professor of Surgery in the University of Glasgow, in the room of the late Sir George Macleod.

PROFESSOR VIRCHOW'S friends on Wednesday last celebrated the twenty-fifth anniversary of his first election to the Prussian Parliament, in which he still represents the Third Berlin constituency.

MR. FIELD will deliver the Harveian Lectures this year, "On the Pathology and Treatment of Suppurative Diseases of the Ear."

IT is announced that the examination in Sanitary Science at the University of Cambridge will be held from Tuesday, Oct. 4th, to Saturday, Oct. 8th next.

MATER MISERICORDIÆ HOSPITAL.—It is contemplated by the managing committee of this hospital to erect a building which shall be isolated and situated at a distance from the main building, for the reception of patients suffering from infectious diseases. It is further proposed to establish a convalescent home in connexion with the hospital. This will necessarily cause a considerable expenditure, and the authorities have appealed for funds to carry out the necessary improvements. There are now 311 beds available for patients and the daily average for the last ten months of 1891 was 291·6.

METROPOLITAN ASYLUMS BOARD.—The number of patients remaining in the several fever hospitals of the Metropolitan Asylums Board on the 20th inst. was as follows:—Eastern Hospital—416 scarlet fever, 63 diphtheria and 40 enteric fever; North-Western Hospital—414 scarlet fever, 88 diphtheria and 22 enteric fever; Western Hospital—302 scarlet fever, 47 diphtheria, 3 typhus fever and 11 enteric fever; South-Western Hospital—305 scarlet fever, 56 diphtheria and 24 enteric fever; South-Eastern Hospital—399 scarlet fever, 22 diphtheria and 11 enteric fever; Northern Hospital—801 scarlet fever and 20 diphtheria; Gore Farm Hospital—741 scarlet fever. On the hospital ship *Atlas* there were 3 cases of small-pox.

CHOLERA.

SOME CHOLERA COMMENTS.

THE epidemic of cholera is, we are glad to say, decreasing. The tide of cholera literature has consequently now begun to ebb. One thing seems absolutely certain, which was, however, well known before, and that is that the disease may be contracted in one place and carried to another or to several other places before it manifests itself. During the progress of the present epidemic we have had ample evidence of that fact as regards vessels from Hamburg, Havre and other ports. The epidemic has not manifested itself in any great force except in Russia and at Hamburg, notwithstanding that it has prevailed for so many months in the neighbourhood of Paris and the River Seine. The civilised world believes, and prudently acts on the belief, that there is such a thing as cholera infection and that a cholera patient is the source of it, specially so, by and through the micro-organisms contained in the discharges from his stomach and intestines; and we have taken a firmer grip, as it were, of the lessons taught by bacteriological science and its discoveries. It is possible, if it be proved that the comma bacillus is veritably and indeed the cause of cholera, that further researches into its life-history may show that the so-called cholera bacilli can assume a resting or spore stage and undergo certain changes of form under conditions which as yet remain to be demonstrated. Meanwhile, we can only adhere to the more exact scientific methods in the prosecution of our observations and researches.

There are still several points in the history of cholera epidemics which need further elucidation. While it is generally accepted that the disease spreads along the lines of human intercourse and has to be introduced into any given place, and can then only take root, establish and develop itself where it finds suitable nurseries and conditions, there are many persons who contend that it goes nevertheless by roads and methods of its own, pursues a definite course, advances in that area or province which for the time forms its natural limit, that it does not transgress such limits out of due season, even where the conditions as regards the movements of human beings seem favourable for its conveyance, and that it does not radiate equally in all directions from every given centre or outbreak, nor does it commonly take a retrograde course. The reply to this line of reasoning must be carefully sought for in a history of all the facts of the present epidemic. The very rapid extension of the disease on this occasion, for example, if attributable to the increased facilities for its transport, is an important consideration which requires to be thoroughly threshed out. On the other hand, it is quite conceivable that the introduction of its specific cause into any given place may not be at once followed by its active manifestation in epidemic force. This may follow later on, after a period of apparent latency or dormancy. Can any light be thrown on the causes or conditions under which an epidemic or outbreak stops? When the micro-organism on which the morbid phenomena in the affected individual depend is multiplied and reproduced at such an enormous rate it is difficult to explain the cessation of an outbreak without calling to our aid some such hypothesis as that it ceases from exhaustion of the suitable material, or that it dies out like a fire from want of fuel, in that the susceptible population have either fled from the sphere of its influence or been already attacked by it. It must be borne in mind that we are only acquainted with the presence of cholera by its manifestations in human beings—they supply, as it were, the test for it. But speculations of this kind, although they cannot avoid suggesting themselves to a reflective mind, are not likely to help us much at the present time. Some explanation sufficient to cover all the facts will probably be forthcoming one day if we only continue to observe and study the subject with logical candour from every point of view. It is curious, however, to notice the differences of interpretation and opinion regarding the history of the present epidemic. We notice in some of the Indian lay journals that they appear to be somewhat sceptical about the accuracy of the alleged origin at the late Hurdwar fair of the epidemic westward. The cases which led to the breaking up of the fair and dispersion of the pilgrims were, it is asserted, very few in number, and there was no great violence in the outbreak. The course taken by the cholera this year was much the same as in 1829, 1831 and 1847, only the rate of its progress has been enormously accelerated if it had its alleged origin in March last. From the Indian point of view it is urged that it is by the overland route and not by the sea route that Europe is most susceptible to cholera invasions and that quarantine on shipping from Bombay and India is a measure aimed in the wrong direction.

Great activity is displayed on the Continent in efforts to stamp out or limit the spread of the disease by the prohibition or postponement of public fairs, fêtes and public gatherings; but the Czar, it is stated, while ordering General Gourko to report on the state of the cholera in Poland, has not countermanded the army manœuvres this year. Telegrams from the Hague, Rotterdam, Antwerp, Havre and Berlin give returns of a small number of cases of cholera. The disease continues, but is decreasing at Hamburg, and it also still lingers in Paris and its suburbs, and has extended into Galicia. At New York the excitement regarding it has died out, but quarantine is rigorously maintained. The epidemic so far has gone to show that the populations of well-drained cities abundantly supplied with pure water are pretty well ensured an immunity from cholera, provided that a vigilant eye is kept upon the shipping and due precautions be taken against the sudden importation of cholera into their midst. The medical advisers of the Local Government Board in this country have formulated excellent regulations, and the port sanitary officers are to be congratulated on the success with which they have carried them out.

CHOLERA AT HAVRE.

A very interesting contribution to the history of cholera at Havre is published in *La Normandie Médicale*, the writer being Dr. Gibert, the well-known physician and epidemiologist of that town. The first case of cholera in Havre occurred on July 14th, a second on the 28th, a third on Aug. 2nd, and two more on Aug. 4th. Thirteen more took place between the 9th and 13th, and up to this date no less than fourteen out of the eighteen persons attacked had died. After this the disease increased with rapidity and the severity was considerable. Indeed, Dr. Gibert states that of the first fifty cases received into hospital no less than forty-eight died. Between Aug. 16th and 31st 815 attacks and 255 deaths took place, and it was only with the month of September that any material diminution set in. Dr. Gibert's story only goes to Sept. 11th, and by that date a total of 1091 cases and 393 deaths had taken place in forty-two days—an amount and fatality of cholera that can best be judged of by the fact that had the population of Paris been smitten at the same rate there would have occurred in the same period 27,275 cases and 9825 deaths. The disease, as is well known, has been continued in Havre up to the present date, although at a diminishing rate, and hence the total effect of the epidemic on Havre has yet to be told. But perhaps the most interesting part of Dr. Gibert's straightforward narrative relates to the etiology of the disease. In the first place, he asserts that the introduction of the new term "diarrhée cholériforme" has had a most deplorable result from the point of view of prevention; it has, he says, been deceptive both as to the nature and severity of the disease, and in its clinical aspect it is altogether unjustifiable. Here it is that, according to his view, his Paris colleagues have fallen into a most unfortunate error. MM. Dujardin-Beaumetz, Brouardel and Proust declared the cholera around Paris to be a simple cholera on the ground that its diffusion was slow instead of rapid, and it was also announced that it was due to drinking Seine water. But not only were there many attacks—at Aubervilliers, for example—which were typical of true cholera in its worst form, but Seine water alone would not produce cholera. Contaminated waters have again and again been in maintained use, producing various ailments and diseases; but it is evident that Dr. Gibert holds to the view that, if water produces cholera, that water must have received the infection of cholera. These views coincide with the opinions we have all along expressed. From the first we contended that whatever the Paris disease might be called, it was for all etiological and preventive purposes what

we term cholera; and though we have long known that the use of the Seine water was almost invariably associated with an excess of enteric fever in Paris, yet we were convinced that the cholera in the outskirts of Paris last May and June had not originated in the use of that water, whatever might have been the causes of its ultimate extension. Dr. Gibert takes up the argument from another point of view. He reminds his colleagues of all the attempts they have made at European conferences to set up a barrier in the East—namely, at the Suez Canal—against the westward advance of cholera; but if it be true that the consumption of water from a river which is polluted with sewage can in itself produce cholera, wherein lies the good of the eastern barrier? In short, Dr. Gibert has the courage of his opinions; those opinions coincide with the researches of modern science, and they are the only ones which free such occurrences as those in and about Paris from that which, more than any other cause, tends to obscure the true nature of the circumstances that have to be dealt with. As regards the Havre cholera, Dr. Gibert admits that its cause has remained undiscovered. Whether it was due to an unknown importation by means of travellers arriving from Russia and only suffering from the disease in a mild, but none the less infective, form may not now be ascertained. But the statement that the disease was imported from Hamburg by means of the steamship *Rugia* on Aug. 24th is altogether fallacious, for by that date 74 cholera deaths had already taken place in Havre. In point of time the reverse is far more likely—namely, that Hamburg received its cholera from Havre, where, notwithstanding Dr. Gibert's honesty, the disease was for a considerable time hushed up. The narrative contained in *La Normandie Médicale* gives an excellent account of the energy which, under Dr. Gibert's advice, was displayed by way of prevention. The indigent poor inhabiting the worst dwellings were actually removed from their homes, and were housed, clothed, washed and fed pending the thorough disinfection and cleansing of their homes, and it was subsequently to the adoption of these amongst other measures that the diminution in the extent and fatality of the disease set in. In conclusion, Dr. Gibert states that the statistics of the epidemic which we have quoted fail to give a true idea of its severity, because other cases than true cholera were, for preventive purposes, included in the list of cholera attacks. But of those cases which were removed to hospital no less than 70 per cent. terminated fatally.

THE CHOLERA IN FRANCE.

(FROM OUR SPECIAL CORRESPONDENT.)

PRECAUTIONS ON THE FRONTIERS.

THE French Government has, it is now well known, finally abandoned all idea of establishing quarantine for travellers who enter the country by land. Instead of quarantine, a method of medical inspection and control was organised, which has been already described. I will therefore only briefly mention that everyone entering France from countries supposed to be infected passes a medical examination at the frontier, receives a sanitary passport, must have all dirty linen disinfected, and is placed under medical surveillance for five days. It was with feelings of keen curiosity that I approached the frontier station of Feignies, on the road from Brussels to Paris. When the train drew up on the platform all the doors leading to the station were carefully closed and guarded. Leading up to one door, where a gendarme stood in full uniform, a wooden balustrade had been erected, so as to enable the passengers to form a queue, as is done at a theatre, and thus prevent crowding and pushing. Railway porters examined every carriage so as to make sure that no parcels or bundles had been left in the train. As each passenger in turn approached the door guarded by the gendarme, he was asked to produce his card and to write upon it the name of the town he came from and to give in full the address of the hotel or house where he intended to stay. As soon as the door was passed the passenger found himself facing a table where two clerks were busily writing. On the left-hand side a commissioner of police dictated from all the passengers' cards the name and address. This was inscribed in a large book by one clerk and on a yellow card by the other clerk. The yellow card was then handed to the doctor who stood on the right-hand side of the passenger, and by whom the passenger had, it is to be presumed, been examined while these inscriptions were made. But as it does not usually take more than a few seconds to write out a name and an address, the medical examination was of the briefest. The doctor, who held a pen in his hand all the time, hastily scribbled his initials on the yellow ticket and handed it to the passenger. The passenger was now made to move on to the next room, where the porters were bringing in the luggage from the train. Thus the severest part of the ordeal was brought to an end. The only inconvenience is that some of the passengers have to wait a considerable time before they can get through; and, if they are heavily laden with bundles and parcels, this is somewhat fatiguing, as in the crowd there is no room for porters to assist. Then it must be borne in mind that if the medical examiner thinks fit he has the perfect right to detain any passenger. Fortunately no one as yet has been detained. Nevertheless the law does sanction the detention for the period of five days of any passenger who exhibits suspicious symptoms. Such symptoms, however, would have to be of a very marked character to be observed in so cursory an examination.

Having obtained my yellow card, or sanitary passport, as it is called, I was free to see after my luggage. The custom house officials, including a woman for women's clothes, showed much greater severity than usual, and caused a larger number of trunks and parcels to be opened than was the practice before the cholera epidemic. But they seemed far more concerned in preventing the smuggling of cigars than in detecting the presence of soiled linen. I was not even asked whether I had any soiled linen, but the custom house official made a very determined dive for a suspicious-looking box at the bottom of my trunk, being under the mistaken conviction of having discovered a goodly store of cheap Belgian cigars. I saw no soiled linen anywhere. Most if not all the passengers had been careful to cause their linen to be washed before starting. Whatever linen is found is taken away and disinfected by steam under pressure and forwarded to the owner by parcel post. What with the medical examination, the delivering of a sanitary passport to each traveller, and the rigour displayed by the custom officials, the delay at the frontier is from half to three-quarters of an hour longer than usual. But I fancy extra steam was put on when once the train started. In my case, when we arrived in Paris we were scarcely half an hour behind the appointed time.

On my sanitary passport I found a warning to the effect that if I did not report myself at the nearest town hall within twenty-four hours after my arrival at my destination I should, in accordance with Article 14 of the law of March 3rd, 1822, be subject (and this without the possibility of extenuating circumstances) to from three to fifteen days' imprisonment and to a fine of from five to fifty francs. It will be observed that there is no option between imprisonment and a fine, but that both fine and imprisonment are to be inflicted. Consequently I did not fail, on the morrow of my arrival, to report myself at the Mairie of my district. Here my passport was stamped, and this is the proof that I duly reported myself, and therefore I need no longer fear imprisonment. But even before I had time to go to the Mairie an official had been round to my house and had inquired of the porter whether I had arrived and was in good health. Every day since this official has returned and renewed his inquiry. On being assured by the porter, or *concierge*, that I was up and about and apparently in good health the official went away satisfied. Had I failed to put in an appearance at the porter's lodge during the day he would have come up to my room to make sure that I was not suffering from cholera. This kind and polite solicitude on the part of the authorities as to the condition of my health will continue for five days, which, according to French medical opinion, is the period of cholera incubation. Assuredly this is the best of all the precautions taken. There is no harm in watching persons, so that measures of isolation and disinfection may at once be applied. So far, however, these precautions, though they necessitate considerable trouble and expense, have been taken in vain, and should be applied in the case of those who leave France rather than in that of those who enter France. The newspapers I was reading while travelling from Belgium to France recorded that there had been on the previous day three cases of cholera at Antwerp and not one at Brussels;

sea, in fact, is a great purifer; and though the sanitary conbut there were forty cases in and about Paris and fifteen cases at Havre.

It was only at the end of the month of August that the decree ordering the application of the system of inspection and surveillance just described was signed. This decree was not actually put into execution before Sept. 3rd. As the first cases of cholera in Belgium occurred on Aug. 16th the French frontier remained unprotected for a good fortnight; and now that the decree is applied, from what I saw at the frontier station, it is quite certain that soiled linen can and does occasionally pass through. Thus, after all, the only real security against cholera is the internal sanitary condition of the country and not these precautions taken at the frontier. But even if no soiled linen did pass among the passengers' luggage the decree only applied to such luggage. The luggage that was not registered with the passengers, but was forwarded separately, came through without let or hindrance. Only a few days ago it was discovered that at the various railway stations of Paris there were several hundred boxes, cases and parcels that had been forwarded directly from Hamburg and other contaminated places to Paris. When claimed by the owners these boxes were handed over without any sort of sanitary precaution. Thus anyone travelling from Hamburg to Paris had only to send his luggage by goods train or by parcels express and it was delivered to him in France without undergoing any process of disinfection. One of the principal medical officers in the service of the Paris municipality, having made this discovery, hastened to inform the Premier, M. Loubet, who, as Minister of the Interior, is the highest sanitary authority in France. M. Loubet, who was not at the time at the Ministry, ultimately signed an order for all the parcels, boxes &c. that were at the stations, and which had been sent by goods and other trains, not to be delivered over to the owners, but to be opened by the owners when claimed, and all soiled linen and other suspicious objects to be taken out and disinfected. To do all this a special and novel service had to be organised at each railway and goods station. The whole was done with great rapidity, but of course a large number of boxes &c. had been delivered and introduced into Paris before this service was established. Therefore even if these measures can keep cholera out of the country, it is very certain that cholera has had ample opportunity of effecting an entrance before the measures were applied. All these incidents show how impossible it is to take thorough precautions for the exclusion of cholera. To be thorough, these examinations &c. should have been enforced on Aug. 16th, and they were only applied on Sept. 3rd. Then they only dealt with the registered luggage accompanying the passengers, whilst all luggage sent separately was allowed to pass freely.

After having neglected for too long to examine passengers' luggage a reaction in the opposite sense naturally ensued. The railway official became too keen and zealous. Thus, the other day a somewhat comic incident occurred. A large body of English tourists arrived from Homburg. They had, of course, passed the frontier without difficulty; but at the Paris railway station the officials thought they had made a terrible discovery and seized all the luggage, refusing to give up the smallest parcel. In vain the English tourists protested that they had come from a perfectly healthy country and that there was not a single case of cholera at Homburg. In vain the English tourists explained that Homburg was not the plague-stricken seaport town, but a peaceful inland watering-place; the railway official could make no distinction between Hamburg and Homburg. It was only after a great disturbance and the fortunate appearance on the scene of a medical man attached to the sanitary services, who had a better knowledge of geography, that the railway officials were made to recognise their error and restored the luggage to the English tourists.

While Paris is being thus protected from outside contamination the state of affairs within its walls has far from improved since my last visit. I have not yet had time to make many inquiries; but I have ascertained one fact, which in itself is sufficiently significant. From Aug. 1st to the 16th the municipal authorities performed 668 disinfections; from Sept. 1st to the 16th the number was no less than 1593. Of these latter disinfecting operations, 817 were due to cholera or cholerine cases. In one single house where a case of cholera occurred no less than twenty-two apartments or separate tenements were disinfected. Certainly in this respect the authorities have shown the greatest energy, and no pains or expense have been spared.

Our Paris correspondent writes: "The cholera epidemic is, I am happy to announce, not making any sensible progress in this country. In Paris itself the mean daily mortality from this disease has descended from 32, the figure at which it stood for the first fortnight of September, to 12 for the second fortnight. Since the beginning of the outbreak at Havre there have been up to this date (Sept. 20th) 1197 cases and 438 deaths. The directors of the Paris hospitals are required to have the water consumed by the patients analysed, both before and after filtering, by the resident pharmacist. All nurses who succumb while on duty to cholera are to be buried free of expense at Père Lachaise, and such deaths are to be reported immediately to the Director of the Assistance Publique, the Prefect of the Seine and the President of the Municipal Council. The cholera wards at the Necker Hospital have been, since the beginning of the outbreak, under the charge of Dr. Peter. At yesterday's sitting of the Académie de Médecine this veteran disciple of Trousseau communicated the statistics of his cholera patients. He stated that from May to the 18th inst. 118 cases (including 10 of simple diarrhœa) came under his observation. Of these, 44 died, the mortality thus being 40·8 per cent. Thirty-five cases were closely watched, and it was seen that they could be split up into several categories. Thus in 4 the stools were simply diarrhœic, in 6 they were simply bilious, in 14 they were bilious and contained besides rice-like particles, in 6 the stools were rice-water in appearance, and in 2 they were dysenteric; in 3 cases the pure comma bacillus was found, in 9 the pure bacterium coli, in 1 the comma bacillus of Finkler-Prior, in 4 this latter micro-organism was associated with the bacterium coli, and in 1 the bacterium coli was found with a diplococcus. No experiments were made with the comma bacillus, but the bacterium coli killed rabbits in from fifteen to fifty-two hours with all the symptoms of cholera. Rabbits were refractory to the diplococcus. Of 10 fatal cases, 4 had rice-water stools and 6 bilious stools with or without rice-like deposit. The total mortality as thus analysed stands: 66 per cent in cases with rice-water stools; 30 per cent. in cases with bilious stools; 0 per cent. in cases with common diarrhœic stools. One of the characteristics of the present outbreak is that many patients die during the period of reaction, all vomiting and diarrhœa having ceased and cyanosis and algidity being absent. The hot weather seems to have had a malign influence on the mortality. Thus from the 22nd to the 30th of August, the temperature being low, 16 out of 27 patients succumbed. The temperature having risen on the 1st of September, 6 out of 7 cases died. As regards contagion, he considers cholera as less contagious than typhoid fever. Dr. Peter refers to the panic-stricken authorities of New York, whose stringent measures of precaution are, according to him, contrary to the dictates of common sense. As to treatment, he combats the premonitory diarrhœa with opium, and avows himself—forgive the Hibernianism—a warm partisan of the spinal ice-bag, which he finds relieves the cramps very promptly. Friction, injections of ether and caffeine, alcohol and mustard foot-baths complete Dr. Peter's armamentarium. He concluded his paper by refusing to acknowledge the existence of the varieties of cholera. This view was immediately opposed by Dr. Brouardel, who discovers such points of divergence between the Paris epidemic and true Asiatic cholera that he cannot admit their identity. The Paris form is sporadic, whilst the true Indian variety is epidemic. He points out that clinical and bacteriological observations cannot solve the problem. He rebuts Dr. Peter's assertion that cholera is less contagious than typhoid fever."

THE CHOLERA IN BELGIUM.

(FROM OUR SPECIAL CORRESPONDENT.)

THE DANGERS OF INLAND NAVIGATION.

WHILE great precautions are taken at seaports to prevent the importation of cholera by some seagoing ship, there is a tendency to overlook the dangers of inland navigation. Yet it only requires a moment's reflection to show that a canal may be far more dangerous than the sea or a river. The

ditions that prevail on board seagoing ships are often far from perfect, there is more space and better air than on board a barge in a canal. Bad sanitation on board ship or barge is an important factor in the spread of cholera. The epidemic selects at least its first victims among those who sleep in badly ventilated, dark rooms. Though in the course of time the scourge may reach all classes of society, those who live in the worst sanitary conditions are always the first to suffer. When I mooted this phase of the question to members of the Scheldt Sanitary Commission, they urged there were special reasons to be watchful over those who travelled by water. There was always ventilation in a railway carriage. The doors were constantly opened. A ship had to be made air and water tight. This was not the case with a railway carriage. The rapid motion of the train forced the air through a thousand small fissures, so that even if the travellers were foolish enough to shut all the windows and ventilators, still there was some air. This could not be said of the steerage and the sailors' quarters on board ship. Whatever care may be taken to ventilate the saloons the forecastle is too often neglected. Thus the sailors, by the fact that they sleep in dark, badly ventilated and often very dirty cabins, are more particularly susceptible to the danger of contracting cholera. These arguments were adduced as a sort of explanation of the contrast afforded between the severity of the quarantine regulations imposed at Doël-on-Scheldt, which I described last week, and the ease with which travellers by railway could enter Belgium. A traveller starting from Hamburg by sea would not be allowed to land at Antwerp till seven days after his departure. The same traveller, if he took the railway, could reach Antwerp in twelve hours. Of course such a traveller would be detained if just at the very moment he was passing the medical examination at the frontier he fell ill; otherwise there is no obstacle and no delay worth mentioning in the intercourse by land between Antwerp and Hamburg. Many a panic has been created in various business offices at Antwerp by the sudden arrival direct from Hamburg of some customer or business agent. Several merchants complained in my presence at having been compelled to receive and entertain customers from Hamburg whose presence at Antwerp, though usually very welcome, was scarcely desirable under existing circumstances. Certainly a prolonged habitation of the dirty, dark, ill-ventilated and crowded forecastle of a seagoing ship is more likely to facilitate the development of cholera than a brief sojourn in a railway carriage; but this difference is not so great as to justify seven days' quarantine against travellers by sea and no quarantine at all against travellers by train.

Whatever may be said concerning insanitary conditions on board ship can be said with even greater force of the barges that glide along the stagnant and often foul water of a canal. The cabins inhabited by the bargemen and their families are extremely small, and if they appear to be clean this "cleanliness" is due to washing with the dirty water taken from the canal. There are no strong sea winds to send down gusts of purifying air into these cabins, and to impart health and vigour to those who are on deck. Also the character of the cargo taken on board a barge is often more foul than that received on board a ship. For instance, there are some very important manufactories of human guano in Belgium, which employ a fleet of barges that travel in all directions to collect the contents of cesspools. A year or so ago I saw some of these barges at Calais, where they came to fetch the contents of the cesspools which abound in that town. These barges would have to travel several days on canals to reach the guano factory in Belgium.

One very important grievance was pointed out to me by M. Vandervelde, the chemist of the Scheldt Sanitary Commission. There are actually in the docks of Antwerp some two or three hundred barges loaded with grain. It has become a regular practice to use barges as depôts for grain. A corn merchant buys a cargo of grain which he is not able to sell at once. To put this grain into dock would cost a considerable sum of money, and there are difficulties in the way of sending labourers to stir this grain when in dock. The corn merchant therefore hires a barge, and when once in the barge the grain is ready to be delivered as soon as a purchaser is found. But it often happens that a considerable time elapses before the grain is sold. In the meanwhile bilge-water accumulates in the barge. The bilge cannot be pumped out for that would wet and spoil the grain. Then there is an invasion of rats and mice, which adds to the foulness of the barge, and fermentation sets in. Nevertheless the barge remains stationary in the docks, and the bargeman and his family continue sleeping on board, breathing throughout the night the foul emanations of the dead rats, the fermenting bilge water &c. It has already been noticed that cholera is especially prevalent among bargemen, but M. Vandervelde is about to prepare statistics which will, he believes, show that, among the bargemen suffering from cholera an exceptionally large proportion belong to the barges that have been made to serve as depôts of grain.

Early in the history of the present epidemic it was found that bargemen were conveying the cholera from town to town. The sanitary authorities of Brussels were, I believe, the first to appoint medical inspectors to visit all the barges that came to Brussels. In the suburbs at Laeken and other places there had been cases of cholera on board barges coming from Antwerp. The other day a somewhat dramatic incident occurred. Dr. Huart and Dr. Matthys, who were inspecting the barges on their arrival at Brussels, found a bargeman suffering from cholera. The ambulance carriage was immediately on the spot, but a panic prevailed, and no one would help to take the bargeman out of the cabin and off his boat. The two doctors whose names I have mentioned had to perform this dangerous and difficult task themselves. They carried the unfortunate bargeman in their arms up the ladder from his cabin and on to the shore, where they soon reached the carriage. The bargeman's wife was also seized with terror; she completely lost her presence of mind, took all her husband's soiled clothes and threw them into the canal. It was with great difficulty and after a considerable loss of time that these various objects were taken out of the water. Together with the bedding used by the patient these clothes were burnt, but who shall say that they had not already contaminated the water of the canal. Apart from this peculiar and exceptional case, it is well known that the dejecta of the bargemen, whether suffering from cholera or not, are thrown into the canal. It is equally notorious that the bargemen not only wash their barges with the water from the canals, but also, and not unfrequently, drink this water. Thus, if statistics were forthcoming as to all the cases of cholera which have occurred in Belgium, it would be found that a very large proportion of the cases have occurred among bargemen and their families. It will also be found that at Malines, at Bornheim, and a number of other places, the cholera was brought to these towns by barges coming from Antwerp. So pressing has this danger become that a new sanitary post has been established at Vilbrooke, on the canal midway between Brussels and Malines. It is all the more necessary to protect the town and district of Vilbrooke as this locality suffered most severely during the last cholera epidemic. While the deaths from cholera at Brussels amounted in 1866 to 20 per 1000 of the population they were equal to 45 per 1000 at Vilbrooke.

At Brussels very severe measures are taken against the canal barges. On the slightest suspicion of illness the cabins are disinfected by the burning of sulphur. Notices are served on the bargemen urging them not to drink the water of the canal. At Antwerp a large number of barges have been disinfected as a precautionary measure, and efforts have been made to provide pure drinking water to the bargemen. Still, the bargemen constitute a rough, ignorant population and it is very difficult to make them understand the advantage of all these measures. The more the matter is studied the more necessary it seems to watch over the canal populations. The general public hears and knows a great deal more about ships and railways than about barges and canals, and there is consequently a tendency to overlook the latter. The development of the epidemic so far clearly shows that such neglect would be a fatal mistake, and that cholera may travel by canals and barges as surely if not as rapidly as by railway and ocean-going steamships.

CHOLERA IN GERMANY.

Our own correspondent, writing from Berlin, states that the numbers of the cholera cases and deaths reported in Hamburg on the 9th inst. were 350 and 150, on the 10th 213 and 113, on the 11th 390 and 175, on the 12th 333 and 142, on the 13th 344 and 148, on the 14th 283 and 108, on the 15th 306 and 128, and on the 16th 276 and 136. The number of cases in Hamburg down to Sept. 10th is authentically given as 13,238 and that of deaths 5805—that is, 44 per cent. of the cases ended fatally, a very favourable proportion when compared with the mortality

in former cholera epidemics in Berlin, which fluctuated between 60 and 67. The number of cases in proportion to the population of Hamburg is about 1 in 46, that of deaths 1 in 105. The corresponding figures in the Berlin epidemics of 1837 and 1849 were 74 and 113. The continuance of the epidemic will of course make the comparison still less favourable for Hamburg. Professor Koch went to Hamburg again on the 14th and was present at the meetings of the Cholera Commission there next day. On the 16th the Commission resolved to sink Abyssinian wells in many parts of the city and its environs. Dr. Koch returned to Berlin on the 16th, but declared his willingness to attend the meetings of the Commission at any time. The Hamburger Börsenhalle states that he and Privy Councillor Köhler, director of the Imperial Office of Health, inspected the hospitals and barracks, and all the arrangements for the transport, treatment and care of the patients and for dealing with the epidemic, and that Dr. Koch expressed his admiration of them in the highest terms. Such perfection, he said, had never been attained before. An Imperial Commissioner has been appointed for the hygienic supervision of the basin of the Elbe, and has divided it into eight districts, with an army doctor at the head of each. His name is Baron Richthofen. The Emperor has empowered the commanders of army corps to diminish the sentinel service, to forbid funeral parades, and to reinforce the staffs of the military hospitals from the reserve. In the Moabit Hospital, belonging to the city of Berlin, to which the few sporadic cases that have occurred here have been taken, special arrangements have been made for the disinfecting of the excreta. The latter are mixed with a 5 per cent. solution of permanganate of potash and then boiled for from four to ten minutes.

A correspondent writes from Hamburg: "There can be no doubt that the cholera in Hamburg was imported from Russia, but the exact source has not been traced and cannot now be found. It commenced on Aug. 16th, but it was not till 1 P.M. on Aug. 22nd that the foreign consuls were informed that cholera existed in the city, though 58 deaths had previously occurred; thus ships which may have been freighted with this deadly scourge were sent all over the world with clean bills of health. The most fatal days of the epidemic were Aug. 26th with 456 deaths, the 29th with 484, and Sept. 1st with 478. Up to the present time there have been probably 7000 deaths. Though considerable confusion occurred at first, now the sanitary stations, the disinfecting stations, the ambulance arrangements and the depôts for the dead are in perfect function. The cholera is all over the town, and it is reckoned that 28,000 citizens have left the place. The cholera is of a fatal character, at least 50 per cent. dying. It is of a type of disease not unusual in Europe, but not so very frequently seen in the East. The diarrhœa and premonitory symptoms are severe, rapidly followed by collapse, in which death usually occurs if the disease is fatal; but should that not happen, the reaction is comparatively mild, the typhoid fever condition not severe, and any high febrile state very rare indeed. Albuminuria is fairly common but by no means universal. Nothing worthy of remark is to be noticed in the treatment, the mild cases recovering without any complication, and those of a severe type dying rapidly in collapse, no treatment apparently making much difference. The evidence derived from the type of disease is strongly confirmatory of an importation through Russia. It is most earnestly to be hoped that the inhabitants of Hamburg will be thoroughly roused to the danger of drinking Elbe water that has gone through a mere farce of filtration."

CHOLERA IN AUSTRIA.

Our Vienna correspondent writes:—"The cholera has now made its appearance on Austrian territory, at Cracow. The first case is said to have occurred as early as on Sept. 8th, at Podgorze. Soon three other cases followed in the same quarter. Podgorze is a suburb of Cracow, separated from this town by the Vistula river, which is there spanned by a bridge. On Sept. 9th a case of suspected cholera had been admitted into the Cracow Hospital of the Samaritan Brothers (Barmherzige Brüder), a Catholic order of monks devoted to nursing and treating the sick. On Sept. 11th there was much talk about the occurrence of cholera cases in the town of Cracow, and similar rumours were also heard regarding Vienna. After a meeting of the highest medical council, held on Sept. 10th in Vienna, nothing was set forth by the official organ of the Council, *Oesterreichisches Sanitätswesen*, and on the 15th inst. it stated that "no case of cholera had occurred in Austria up to Sept. 13th." The public were much surprised by an official statement of the probable outbreak of the cholera made by the official gazette on Sept. 17th, on which day also the Professor of Pathological Anatomy of Vienna (Professor Weichselbaum) was sent by Government to Cracow to make a bacteriological investigation. Precautions were thereupon taken to prevent the further spreading of the disease. In other parts of Austria the progress of the disease is watched with the greatest anxiety. Cracow itself, and especially its suburbs, Kasimir and Podgorze, are in a very bad sanitary condition. It contains a poor, filthy population, bad drinking water partly taken from the river, and an inferior system of treating the sewage. The province of Galizia, in which Cracow is one of the principal towns, with its 6,600,000 inhabitants, has only seventy-two hospitals, with 4257 beds. Most of the villages are too poor to build new hospitals. Even the number of physicians, especially in the rural districts, is too small in ordinary times to secure proper treatment of the sick people, and in the time of an epidemic a great number of physicians from the other provinces will have to be sent to Galizia.

"The circumstances under which the outbreak of cholera at Cracow occurred seem to teach the same lesson as in the case of Hamburg. In both towns the report of the outbreak of the disease has been considerably delayed by the claims of modern bacteriology, according to which the diagnosis of cholera Asiatica is only allowed to be made if the comma bacillus is stated by microscopic examination and by subsequent cultures to have been present. But regarding the cultures there seems to exist great difficulties. I believe that especially one point is easily to be overlooked by those engaged in such investigations—i.e., it is not to be expected that a culture could be easily obtained of such a micro-organism as the comma bacillus, whose vitality is so immensely lowered by most chemical bodies as soon as the patient has already undergone any medical treatment. The matter for the cultures should, if possible, be obtained from the dejections or vomited liquids before any medicine has been administered.

"By the strict system of quarantine maintained in this country the trade and the industry have already been interfered with. In the industrial districts of Bohemia and Moravia production has to be restricted on account of the want of raw materials which were imported from Germany. It is easy to understand that it is not possible to keep the population of the empire under good sanitary conditions at a yearly rate of expenditure of two and a half kreutzers, a halfpenny per head of population, and that is one reason why choleraphobia is now so prevalent among the people. Even now, in the time of imminent danger, parsimony prevails so much over common sense and humanity that local authorities—as, for instance, the municipal board of Vienna—are disputing with the Government regarding the duty of erecting cholera hospitals at Vienna. Nor is it less interesting to learn that the Government is asking the hospital physicians to enter cholera hospitals, promising a salary of sixty-two florins (£5) monthly with board and lodging."

THE SANITARY CONGRESS, PORTSMOUTH.

PAPERS AND SECTIONAL WORK.

IN the absence of Dr. J. Wright Mason, Medical Officer of Health for Hull, Dr. Groves read a paper by the former on the Sanitary Influences of Harbours and Exposed Foreshores. He advocated the perfect sanitation of our first line of defence and mentioned the special risk of zymotic invasion by way of those ports in most constant and direct communication with the Continent.

Dr. Dawson Williams contributed a paper on the Route of the Cholera in 1892, and traced the disease from the north-west frontier of India, through Afghanistan, and along the Transcaspian railway, across the Caspian to Baku, the centre of European infection.

Dr. Lane Notter pointed out that the strength of our first chain of defence was measured by that of its weakest link, and he asked if anyone could say what was being done in the smaller ports and along the coast generally.—

Dr. Thresh said that in the small port sanitary authority of Malden, in Essex, a hospital tent had been erected, and along the whole coast the coastguard officers had been instructed with whom to communicate should a case of cholera or cholernic diarrhœa come to their knowledge.—A Member remarked that the paper scarcely justified its title.—Dr. Lane Notter considered that yellow fever originated in slave ships, though the conditions favourable for its continued existence seemed to be associated with exposed foreshores.—Professor Cayley pointed out that in several recent epidemics of yellow fever there was no association with the slave trade.—Dr. Groves stated that cholera had often been said to follow the course of rivers. This had been observed in this country. When a young man he had assisted to investigate the cause of the outbreak in 1866, and showed how the *fons et origo mali* had been found to be pollution of the water supplied to a portion of the East-end of London.

A vote of thanks to Dr. Lane Notter, who had presided at all the meetings of the Section, was proposed by Dr. Thresh and seconded by Dr. Sandall.

In Section 2 Mr. James Lemon, the President, gave an interesting address on Engineering and Architecture. He gave the medical profession credit for having called the sanitary engineer into existence. He criticised adversely the metropolitan scale of drainage, and said that the question of dealing with rainfall should be determined by local considerations. He pointed out the care necessary in the management of sea outfalls, especially as regards the determination of the force and direction of currents, before discharging crude sewage. He also remarked upon the folly of insufficient drain ventilation, and said the ideal drain was an open one in the centre of the street, were it practicable. Finally, Mr. Lemon sketched the points to be borne in mind by the sanitary architect (a term of his own coinage) in constructing a model house.

Papers were read by Mr. Hubert L. Terry on the Smoke Clauses of the Public Health Act, 1875; by Mr. Hepworth Collins on the Pollution of Rivers and Canals by Manufacturing and Industrial Operations; by Mr. W. R. Maguire on the Causes and Prevention of Typhoid Fever; by Dr. H. Kenwood on Drain and Soil-pipe Ventilation; and by Mr. Henry Law on Apparatus for Softening Water.

Visit to Haslar Hospital.

During the afternoon about twenty medical members of the Institute visited Haslar Hospital, being conveyed across the harbour in a special launch. They were conducted over the building by Inspectors-General E. T. Mortimer and Macdonald. The hospital was erected about 150 years ago, and has had as many as 2000 patients within its walls at one time. At present there are about 500, but many of them are aged pensioners who were transferred from Greenwich. The complicated structure, absence of any artificial mode of ventilation &c. prove that it does not reach the level of modern requirements in an institution of this character. After inspecting the museum, which contains a large number of specimens of interest to the comparative anatomist, and which possibly would be of much greater service if properly catalogued and suitably housed in a more accessible situation, the visitors partook of afternoon tea and returned to Portsmouth. The weather was perfect and the trip a most enjoyable one.

The Annual Dinner.

The Congress dinner was held in the evening in the Mayor's banqueting-room at the Town Hall. Sir Charles Cameron was in the chair, and there were present the Mayor of Portsmouth (T. Scott Foster, Esq.), the ex-Mayor (Sir W. Pink) and a distinguished company. In proposing the loyal toasts, the President read a telegram from H.R.H. the Duke of Connaught regretting his inability to be present. Appropriate recognition was taken of the "Army, Navy and Reserve Forces," "The Mayor and Corporation of Portsmouth," "The President and Officers of the Congress," "The Borough Members," "The Sanitary Institute" and its "Local Secretaries," and finally "The Health of the Ladies" was proposed and duly honoured.

Chemical History of the Air.

On Friday, the 16th inst., Dr. W. J. Russell, F.R.S., the President, gave an address in Section 2 on the Chemical History of the Air, and traced rapidly and instructively the gradual evolution of facts and opinions in connexion with his subject from the days of Hero of Alexander, "whoever he may have been," to the present time, giving a due meed of praise to pioneers such as Van Helmont, Hook, Boyle and Mayan, and emphasising the great services of Bunsen in this matter. He gave the mean result of the quantitative analysis of air as regards oxygen to be 20·90 per cent., and stated that at the present time probably the most interesting results to be derived from the accurate determination of the oxygen in the air are in relation to this point, the using up of the oxygen, for it is difficult to suppose that two or three hundredths of a per cent. of oxygen can in itself produce any appreciable effect either on respiration or combustion. Ozone, he stated, is probably always present in normal air, but unfortunately we have no accurate method of determining its presence. Dr. Russell inclined to believe its formation was probably due to electrical action and directly or indirectly to evaporation. He then dealt with the question of solids suspended in the air, and said that the great Krakatoa eruption of 1883 had shown how dust on a large scale may be ejected into our atmosphere, and how persistently it may abide there and circulate round and round the globe.

A vote of thanks was passed to the President for his able paper.

Chalk Area and the Water-supply.

Mr. W. Whitaker, F.R.S. &c., read a paper on Maps showing the Area of Chalk suitable for Water-supply in the Central and Eastern Parts of the London Basin, and stated that the whole area coloured as chalk was not available as a gathering ground, and described the following chalk formations in the order of their permeability—namely, bare chalk, chalk covered by permeable beds, chalk protected by beds of mixed or of varying character, and chalk protected by impermeable beds.

Sewage Treatment.

Mr. C. H. Cooper then read a paper on Sewage Treatment.—The Hon. F. A. Rollo Russell discoursed on Exhalation of Vapour from the Earth, and, from a series of interesting experiments, drew conclusions the practical lessons taught by which were the importance of securing an impervious flooring and ventilation in houses and tents, of paving in towns, of avoiding "made soils" and the vicinity of graveyards, of drainage of damp and organically polluted soils, of widely separating cesspools from wells, and of preventing the exposure of articles of food and drink to night air near the ground.

Entomology.

Mr. T. B. Goodall, F.R.C.V.S., read a thoughtful and philosophic paper on Entomology as a Sanitary Science, and, sketching the life-history of the drone fly and the gnat, showed how usefully these myriads of "scavengers of nature" aided sanitation by the consumption of putrefactive matter.

Organic Matter.

Mr. W. C. Young contributed a paper on the Determination of dissolved Organic Matter in Water, and described a process which gave satisfactory results, and which was first introduced in a paper by the author before the Society of Chemical Industry in November, 1891. The process, he stated, was extremely simple in practice, required little personal attention, and was completed within four hours.

The Purity of Stable Air.

Veterinary Captain F. Smith, M.R.C.V.S., then read a paper on a Method of determining the Purity of Stable Air by a Comparison of the Temperature within and without the Building. "When we remember that the warming of stable air is derived from the bodies of the animals which live in it we can understand the *rationale* of the observation."

Excursions.

On Saturday two excursions took place, one to the New Forest and the other to the Isle of Wight. Neither was so well attended as had been anticipated, but the weather being perfect, both were completely successful.

Exhibits.

At the Health Exhibition held in connexion with the Sanitary Congress at Portsmouth, Messrs. Humphreys' Iron Isolation Hospital for Infectious Diseases attracted much interest, a special feature of the exhibit being the presence of a few children from the Portsmouth Hospital and a complete staff of nurses. These hospitals are more sanitary than hastily constructed brick buildings, and while it is possible to erect them in a few days, they are capable of lasting forty or fifty years.

A medal has been awarded to Messrs. Burroughs, Wellcome and Co. for their exhibition of medicine chests at the Portsmouth Health Exhibition, and a certificate for Kepler's Extract of Malt.

A PLEASURE CRUISE.

(FROM A HOLIDAY CORRESPONDENT.)

THE latest development of the holiday is the pleasure cruise and there can be little doubt that if those who are interested in shipping industries adopt an intelligent and spirited policy this form of holiday-making is destined to increase. A reference to the advertising columns of any daily paper will show that already there is a fair choice of cruises for selection by those who like to take their holidays upon the great waters, and the time is within measurable distance when the whole world will be, so to speak, at the feet of the pleasure-seeker. The luxury of a pleasure cruise was formerly the exclusive privilege of millionaires, who could afford to keep vessels of their own, but by coöperation persons of comparatively modest means are now enabled to go whithersoever they will in greater comfort and greater safety than the wealthy owner of his own pleasure yacht.

A pleasure cruise has certain obvious advantages over other forms of travelling which make it a very desirable kind of holiday for those who are seeking repose after harassing professional duties, or for convalescents who wish to completely re-establish their health after an attack of acute illness. From the point of view of "change" nothing can be more effectual than a voyage which brings change of air, change of scene, change of food, change of companionship, change of daily routine.

The pleasure cruise enables the voyager to see a great deal without the daily worry which attends ordinary travelling. The packing and unpacking, the slavery of a relentless punctuality and the fretting restraint of the *salles d'attente*, the indifference of landlords who have more guests than chambers, and the tyranny of Ober-kellners under analogous circumstances, have none of them any necessary place in the well-managed sea voyage. Then again the air is pure and uncontaminated and has that peculiar quality of "freshness" concerning which our noses never make a mistake, although the chemist can tell us little concerning it. On the deck of a ship the traveller is sure of inhaling air of maximum purity, and the difference between sea air and land air is never better appreciated than on returning to the ship after a summer's day spent in investigating the lions of some maritime town. Apart from the initial purity of sea air, there is the most important fact that it is constantly being changed. If there be a breeze anywhere it is felt on shipboard, and if the ship be under way the air is renewed independently. It is true that between decks, and especially in foul weather when the scuttles are closed, the air of a ship may be the reverse of fresh, and it is probable that the forecastle of a ship is of all places that in which may be found the smell of humanity in a state of maximum concentration. The purity of the deck seems, however, to compensate for the foulness of even the forecastle, as the hard, ruddy look of the sailors tells clearly enough; and it can only happen very occasionally on a pleasure cruise that it is impossible to get on deck. On board ship the pleasure seeker is at least free from that bugbear of modern travel and monster hotels—the sewage difficulty, for every form of refuse is cast directly into the sea; and in no well regulated ship ought it to be possible to contract filth disease of any kind. The observant traveller, especially if he be a sanitarian, cannot fail to be struck by the enormous amount of refuse matter which is constantly being cast forth from a big ship into the ocean. Cinders, kitchen waste, packing cases, tins, "empties" &c. constitute the incessant "droppings" of an ocean steamer and enable him to understand the foulness of harbours and the serious nature of the houseboat question as it affects the Thames. It is of course highly advisable that organic refuse and litter should not be suffered to remain on board ship to encourage putrefaction and increase the danger of fire; but in point of view of the fact that a large proportion of what is thrown overboard is combustible, it seems to be rather a thriftless course not to make use of such combustible matter for raising steam.

There are certain points connected with a sea voyage which medical men who recommend such a course to their patients will do well to bear in mind. In the first place it is worse than useless to recommend a voyage to anyone who is not at least a tolerable sailor. There are those who become giddy and nauseated with the least movement of the ship and to such as these a voyage is mere labour and sorrow without any compensating advantages of any kind. To those who can tolerate the movement of a ship the sea air acts as a vigorous tonic and causes a marked increase of appetite. This constitutes one of the dangers of a sea voyage, because with the increase of food there is a decrease of exercise and often an increase of sleep. There is often also a tendency to constipation, and thus the normal balance between intake and output is disturbed and biliousness results. Hence it often happens that during the first week at sea landsmen deteriorate in appearance and the complexion shows some pallor, or sallowness, or duskiness. This condition of things is to be avoided by the judicious use of laxatives, and no one should ever embark without being provided with such laxatives as they have found by experience most serviceable. It is common to hear the remark that "sea air is too strong for me," and I think the meaning of such a phrase is that the increase of appetite and assimilation is not compensated by increase of work or increased excretion by the bowels. After the initial disturbance compensation is soon established, metabolism apparently proceeds with great vigour, and ruddy cheeks and increasing weight must be taken as the surest evidence of the benefit which the traveller is getting from the change. It would be interesting to learn with what frequency gouty people suffer from a paroxysm during the early days of a voyage. On theoretical grounds such an occurrence might be looked for; but such an accident is not very frequently heard of, and my experience at sea, which has been considerable, does not supply me with many instances.

Another precaution which it is necessary to observe at sea is to wear rather warm clothes. The deck of a ship in motion is usually colder than the shores of the same latitude, and it is customary to keep an awning continually spread to keep off not only the rays of the sun, but sooty and other particles which may escape from the funnel. This awning, useful as it is, produces a considerable draught and necessitates the provision of rather warm clothing. The mid-day sun is occasionally very powerful, but after sunset chilliness may be the predominating feature of the weather, and as the evenings are spent upon deck and in the fresh air, it is always advisable for the traveller to considerably modify his evening attire.

In the selection of a pleasure cruise the season of the year must assert its influence. The Mediterranean is perhaps the most enjoyable and most interesting cruising ground, studded as it is with places made memorable by historic events, but the Mediterranean is always too hot during the summer months and liable to be more or less unwholesome. Those who wish to take their autumn holiday on shipboard should not go to latitudes which are materially south of the British Islands. The choice of a cruising ground for the late summer thus becomes rather restricted, but the beauties of the coasts of England, Scotland, Ireland, Norway and the Baltic are so great and so varied that it would take many months of continuous voyaging to exhaust them.

My experience has been of late gained upon one of ships of the Orient Company's well-known fleet, and the cruising ground has been the fiords of Norway and places adjacent to them. A few details of the cruise may not be unacceptable. In selecting a boat it is of course advisable to choose a big one, for, *cæteris paribus*, the comfort will be proportioned to the size of the ship. The fiords of Norway are so deep that vessels of the largest tonnage are able to penetrate to the extremities of most of them and to anchor close to the shore, so that there are no drawbacks in large vessels, and these have obviously great advantages for the transits of the open sea. The cabins of the vessel I travelled in, as arranged for these cruises, contain, none of them, more than two berths, so that if the traveller be accompanied by a friend he is secure against the intrusion of a stranger. By paying a fare and a half the single traveller can secure two berths, but this is a luxury which is not within reach of all. It should, however, be found possible to give to every traveller practical privacy without increasing the cubic space allotted to each. I remember seeing a common lodging-house in Glasgow where the beds were arranged in bunks as on board ship; and by the very simple plan of giving access to the top and bottom bunk from opposite sides privacy was secured to the occupant of each, and the confusion of articles of clothing, which is almost inevitable under existing arrangements, was avoided. The ingenious naval architects of the Clyde should visit this establishment when designing a ship intended to be used

solely and entirely for pleasure cruises, for it is certain that if the practical privacy of each traveller could be secured without additional expense the popularity of pleasure cruises would materially increase.

A word of praise must be found for the food, the cleanliness of the ship and the ample supply of clean table and bed linen which was provided, and also for the service and the general management of the steward's department which was all that could be desired. These matters are, it need not be said, of the greatest importance, and no cruise can really be pleasurable unless they receive due attention. It may be well to give a word of warning to the effect that the little details upon which our happiness so much depends all cost money, and it is absurd for the traveller to expect comforts and luxuries without paying for them. A voyage such as the one in question, costs, in one of the best cabins, inclusive of the necessary incidentals, about £2 a day, and although the sum in these days of cheap excursions is not small, it serve to keep away the crush and enables the company to perform their part of the contract with absolute thoroughness. Nobody who has not tried it knows the discomfort, not to say danger, of an overcrowded ship, where the obtaining of daily necessaries means a constant struggle. My advice to intending pleasure cruisers is to select a first-rate ship, owned by persons of repute who have a character to lose, and to be ready to pay a fair sum for thoroughly good accommodation. The daily life on board the boat by which I travelled began with a cup of tea and a biscuit brought by the steward at 7 A.M. or earlier, and this was followed by a refreshing salt-water bath and a rub which set one all aglow. After the toilet a walk on deck, and at 8.30 breakfast, at which meal many of the younger men were ready (in the phraseology of the day) to "tackle" the *menu* of porridge, fish, cutlets, bacon, eggs, cold meats, preserves and fruit. After breakfast the time till the luncheon hour was spent upon deck, gossiping, reading or playing deck games. Between luncheon and dinner the hours were devoted to similar forms of busy idleness, with an interval for afternoon tea, a ceremony at which nobody was absent. After dinner there was generally a dance upon deck to the strains of an excellent band.

It is not necessary to give the details of our cruise or to descant on all the objects of interest and beauty which are to be met with in the towns and fiords of Norway; suffice it to say that dulness was impossible, and that our voyage of twenty-five days came too quickly to an end. A life of relaxation remote from the worry of that post-office cataract, which is the bane of modern existence; a life of gentle exercise and amusement in the purest air obtainable; a life in which none of us objected to take that full complement of sleep which our old adage accords only to the fool; such a life can be productive of but one result—a result which was plainly apparent in the majority by increase of weight, rounded cheeks, a ruddy colour and a bright eye, with a power of laughing at trifles which a month previously would have merely roused a half contemptuous smile—these were the characteristics of our party when we landed, albeit that it was with regret that we exchanged the pleasure ship for the galley, where (as we but too well knew) a certain oar and chain were awaiitng our return.

CONGRESS OF OBSTETRICS AND GYNÆCOLOGY AT BRUSSELS.

(FROM A CORRESPONDENT.)

Thursday's Proceedings.

IN my last letter I gave a report of the proceedings up to Wednesday afternoon. The President (Dr. Kufferath) gave a dinner at the Hôtel Mengelle to about seventy or eighty members of the Congress. It was marked by being a good dinner and the commendable shortness and cordiality of the after-dinner speeches.

On Thursday morning I again visited Dr. Jacobi's hospital to see Professor Sänger operate on a case of so-called cystocele and rectocele. He first of all marked a central line down the front vaginal wall, dissected off a flap of about a finger's breadth on each side, and, cutting them off, stitched the gap up with fine silk sutures. He then drew up the uterus, and with a finger in the rectum cut a line along the posterior vaginal wall right down to the edge of the fourchette, and dissected off similar flaps on either side, making a transverse cut along the boundary line of the vagina and vulva. He then dissected off a semilunar patch round the posterior fourchette and continued a slight nick down on the perineum. He put in some twenty fine silk sutures till he came outside the vagina, finishing with four silver wire sutures. These operations are all done at eight o'clock nominally.

At two o'clock the Congress met to hear Dr. Segond's paper on the Treatment of Pelvic Suppuration. After him the following spoke: Professor Péan (Paris), Dr. Willems (Ghent), Dr. Travers (London), in favour of abdominal operation; Dr. Jacobs (Brussels), who thought that Dr. Segond's operation should be tried as offering the best results; Professor Goubaroff (Moscow), and M. Richelot (Paris), who contended that the abdominal operation was more difficult, whereas in hysterectomy by morcellement each stage was more easily seen; also that there was even occasionally secondary hæmorrhage, showing that the uterus remained active even after the removal of tubes and ovaries, but if the uterus were removed the ovaries became inactive. Professor Sänger (Leipsic) was of opinion that Péan's operation should be exceptional. Dr. More Madden (Dublin) drew the distinction between intra-peritoneal and extra-peritoneal suppuration, saying that of old the treatment of pelvic cellulitis, which was mainly puerperal, was to leave it to nature and the cases generally got well; that in the light of modern research intra-peritoneal suppuration should be treated by abdominal section and extra-peritoneal by aspiration. M. Goulliond (Lyons) advocated puncture and draining; Professor Picheoni (Paris), Professor Delégénière (Mans), Professor Vuillet (Geneva) puncture after careful examination. M. Walton (Brussels), M. Doyen (Rheims), M. Rouffart (Brussels), M. Duret (Lille), M. Tournay (Brussels), M. Lebec (Paris) M. Deghilage (Mons), and M. Félix (Brussels) spoke; Dr. Heywood Smith (London) agreed with Dr. More Madden in dividing pelvic suppuration into intra-peritoneal and subperitoneal. He maintained that in abdominal section the abscess could be more carefully examined and treated; he objected to Péan's operation as necessitating either the leaving of the uterine adnexa, or, on their removal, the opening of the peritoneum, which had better be done from above. Professor Mangiagelli (Milan) and Professor Chéron (Paris) also spoke, after which Dr. Segond replied.

About 2.30 the King came in and sat in his box in the Palais des Académies, where the meetings are being held, and remained listening to the discussion for about half an hour. At 3.30 the sitting was suspended to enable the members of the Congress to proceed to the Palace, where the King held a reception. The members were received in a spacious room, and were grouped according to their several countries. When the King came in each member was presented to him. He was very agreeable and gracious and spoke to each, after which tea, coffee, wine, cake &c. were served in another room. The staircase is of marble and is very elegant, and in one room are some excellent portraits of former occupants of the throne, reminding one of our own Royal Palaces. In the evening Dr. C. Jacobs, the general secretary, gave a dinner in the Hôtel Mengelle to some members of the Congress.

Friday's Proceedings.

On Friday, the 16th inst., Dr. C. Jacobs removed two diseased ovaries and tubes by abdominal section in the usual way, with every aseptic care, but without any antiseptics.

Dr. Martin (Berlin) opened the discussion on Extra-uterine Pregnancy. He contended that most frequently the ovum was implanted in the tube, that ovarian attachment was less rare than was recently supposed, that the diagnosis of ectopic gestation was one of probability, and that the evolution of extra-uterine pregnancy rarely ends in retrograde metamorphosis without any intervening accident. Cases of development to term are so rare that to respect the interests of the child is to neglect those of the mother; consequently operative interference undertaken as soon as possible was advocated. Mr. Alban Doran drew attention to the fact that in so-called ovarian pregnancy what happened was that the ovary was flattened out over the sac. Professor Dimitri de Ott (St. Petersburg) urged operation in all cases.

M. Danion (Paris) read a paper on the Mechanism of Hæmorrhage in Fibrous Tumours of the Uterus and the Action of Electricity. He considered that electricity was of the greatest use for the arrest of the hæmorrhage, and that such arrest was not due to any caustic action, but to the

electro-dynamic action. Dr. Apostoli (Paris) gave a new contribution to the electric treatment, both faradaic and galvanic, in diagnosis in gynæcology, and read a Note on a New Application of the Sinusoidal Alternative Current.

Dr. Murdoch Cameron (Glasgow) described his method of performing the Cæsarean section. He demonstrated his use of a flat pessary, pressed over the uterus so as to avoid hæmorrhage while making the incision into the uterus, and recommended the use of Hagedon's needle to pass the stitches through the uterus.

Dr More Madden (Dublin) submitted a communication in which he reviewed at considerable length the various diseases of the endometrium in which direct treatment was called for, and the methods by which this might be accomplished in each case. He then exhibited a set of adjustable instruments for intra-uterine work which, in accordance with his suggestion, had been made for him by Messrs. Arnold of London. Dr. More Madden, having demonstrated the method of using these instruments, concluded by urging a wider and earlier resort to endo-uterine treatment in all morbid conditions of the endometrium, by which he believed the extension of inflammatory and other lesions from the uterus and its appendages might in many instances be obviated, and the consequent necessity for grave laparotomy operations might, he ventured to think, be largely diminished.

During the course of the meeting the chair was successively taken by, among others, Dr. Barnes, Dr. Macan, Dr. More Madden and Mr. Alban Doran.

Saturday's Proceedings.

On Saturday, the 17th inst., we again visited Dr. Jacobs to see Dr. Martin of Berlin perform hysterectomy for the removal of a large fibroid, which he did with the greatest skill. He tied all the vessels as he went along with chromicised catgut, and finally dissected down carefully with scissors till he got to the os uteri, so that he removed the whole uterus; he then passed a pair of forceps up through the vagina, caught all the ligatures and brought them out through the vagina. He then sewed the peritoneum over the aperture from the abdominal aspect and closed the wound. The operation lasted about fifty minutes.

At the meeting at ten o'clock Dr. Berry Hart opened a discussion on Placenta Prævia, He maintained that our knowledge of the anatomy of the lower uterine segment is still defective, and it is in that segment that the placenta is situate in placenta prævia. He showed by a cast of the uterus taken from a frozen section of a case at the eighth month the situation of the two segments, and from diagrams and a section the anatomy of the spongy layer where the separation takes place.

Dr. Robert Barnes addressed the meeting in French. He commenced by expressing the pleasure he felt in hearing the instructive demonstrations of the anatomy of the subject by Dr. Berry Hart. He then showed that there were two methods of research: (1) the anatomical, pursued on the dead body; and (2) the clinical and physiological, pursued on the living. Dr. Hart's was an example of the anatomical method. His own, based, as he believed, upon unsurpassed experience, was the true clinical method. This it was that had led him to the true theory of placenta prævia and its treatment. At the same time he had not neglected opportunities of studying the subject on the cadaver. These anatomical observations confirmed the physiological and clinical experience. Dr. Barnes then drew attention to the fact that the division of the uterus into three zones—upper, equatorial and lower—had been described by him in THE LANCET in 1847 and again in 1857 in his Lettsomian Lectures, and that he then showed that the lower segment of the uterus was divided from the middle zone by a distinct "boundary line," thus marking out the lower segment of the uterus as the seat of placenta prævia. He contended that the whole treatment was not summed up in bipolar turning after the hæmorrhage ceased spontaneously and after artificial detachment. This had been shown long ago by Puzos, Wigand, R. Lee, Mercier, Cazeaux and others. Gellé (Provence), Verrier (Paris), Auvard (Paris), Gottschalk (Berlin) took part in the discussion.

In the museum there were exhibited a great number of useful and elegant instruments and preparations: Martin's instruments for hysterectomy, electrical machines, apparatus for the sterilisation of dressings and milk, and a machine for the relief of neuralgia by freezing. There was also a most convenient table for operations from Sweden, made with hollow tubes so that it could be warmed. Among the preparations I noticed a good one of exalgine in solution and also an elegant solution of sublimate, slightly coloured green, in a bottle marked off in divisions of five grammes for dilution, so that it could be easily measured. These were exhibited by the Société d'Hygiène Appliquée.

CYCLING AND VITALITY.

III.—ADVANTAGES.

IN previous articles we have exposed without any reserve certain of the evils of cycling. In that labour we have extenuated nothing nor set down aught in malice. Everything has been intended for the good of the cycling world, not a syllable for or towards its disparagement. We are willing, indeed, to admit that even in the extreme tricks with fortune which enthusiastic cyclists play there is a certain measure of good, and when they reveal to us, as they have so recently done in Mr. Shorland's ride of 367 miles in twenty-four hours, that man is, indeed, physically the strongest and most enduring as well as the most intellectual animal in creation, we are not so blind as not to admit the force of a lesson as interesting on its physiological as on its social and athletic side. It is a new truth of human possibilities, showing what in emergency a man can do and what the body can be trained to perform. Our advice to competitors like Mr. Shorland would be simply to be content with success, and not to continue to repeat great efforts until mischief is done to such fine and exceptional organisations as he and others like him possess.

Our task this week leads us to another and different subject. We are intent now on pointing out that cycling has many and signal advantages extending to the nation as a whole when, as an exercise, it is properly carried out.

The first advantage of it is that it relieves great and crowded communities of much bad air. It takes men, although in a small proportion, out of the close room or office into the open, leaves them free for ventilation and ventilates the cyclists themselves. Everyone who thinks on this matter will, even though he may have some prejudices upon it, concede so much. In such a city as London distance from the country had, so to speak, crippled healthy exercise. How could the busy youth, engaged from nine or ten in the morning until four or five in the afternoon, reach before the day was over even the borders of such places as Hampstead Heath, Barnes Common or Epping Forest? He would be wearied before he received the first breath of country air. He might go by rail; but there was the expense, the closeness and bustle of the station, the worry of a return journey, and the difficulties of so measuring out time as to catch the out-going and the in-coming trains. The result was that he was driven to remain in town month after month and year after year without change. He was by this necessity deteriorated. He might go to the billiard-table or to the bowling-alley; but his physical wants were not supplied. Man is an animal of out-door activity, and as such he demands scope for action like the strongest animals, and here he was cooped in like a bird in a gigantic cage. To such a prisoner the cycle has practically given wings. He learns to travel four times as quickly as he can walk. He learns the shortest roads into the country, and when he reaches his destination he can, without altering his mode of progress, enjoy the change he has passed into with the keenest sense of emancipation from an unnatural confinement. In addition, the exercise itself has for him its pleasant varieties; it brings into play muscles which, being long idle, add only weight to the body and become the storehouses of dead products—rusts which the eliminating organs have to dispose of by one or two channels alone which after a time are overtaxed and deranged in function. The exercise of cycling came in then opportunely for the physical wants and desires of a large and oppressed community—a community which could not ride on horseback and could not walk at such an advantage as would do good service; so far cycling rendered a service that was of really priceless value.

Something more has to be said in favour of the exercise. By it the mind is benefited as well as the body. The mind not less than the body pines under the penalty of home imprisonment. It must have freedom if it is to develop and

become sound and good. Let it rest day after day all through life, feeding on the same fare; let its eyes rest upon the same pictures, its ears receive the same grinding sounds, its nostrils absorb the same persistent odours, and how can it become anything more than a cribbed, wearied, discontented and dwarfed mind. The mind of the youth buried in the confined community was of this kind. It knew no expansion, felt no elasticity; became timorous, obstinate, feeble—what was called by the country folk the mind of Cockaigne, the cockney mind—afraid of the sight of every domestic animal, from a cow to a lapdog; frightened at sounds out of the range of Bow bells, and feeling the country to be a wilderness in which it was unpleasant and possibly dangerous to wander alone.

Cycling has changed these conditions as if by a magic spell. There are hundreds of Londoners now who know the English country better than the country people themselves, who have their road books and maps and tables of distances and lists of resting places in their pockets, who are so much master of their literature on these points that they can go everywhere, and who understand every turn they may have to make better than the yokel whose path they cross or the hotel-keeper whose house they visit. We heard one eminent military authority say quite recently that if he wished to place military scouts all over the kingdom for strategic purposes, or for the laying of electric lines, or for the conveyance of despatches from one distant place to another, he could find an efficient volunteer army of the sort in London alone within twenty-four hours in the corps of cyclists with which it is now provided. All this has been accomplished within—what shall we say?—a period of some sixteen years. Our memory carries us back to that time when Charles Spenser, in a little work called "The Modern Bicycle," introduced a charming account of a cycle journey from London to John o' Groats performed in fifteen days. We thought that a wonderful feat, and so it was, a feat as remarkably done as it was ably told. It opened the way to what is now commonplace in feats of skill and endurance; but it did more—it opened the way to that general scouring of the country by poor town dwellers, to which we have referred with so much gratification. To everything that favours the interests of health and usefulness THE LANCET has always held out a helping hand. It does so still. It has been admitted, not by us alone but by opponents of the cycling fraternity, that a complete revolution for good of mind as well as of body has been brought about by the cycle. In the work of the physician the exercise of cycling has become a prescription, and in many cases—those of melancholic dyspepsia especially—a prescription of great value. Our wish is that every good result from cycling, physical or mental, may be obtained by the exercise. It is only when we see it perverted and strained, when we see it becoming physically a cause of organic evil, that we venture to tender our admonitions. Morally everything seems good about cycling; at all events it has led to no special vice or crime. To its credit be it said that if it has excited competitive efforts, it has not done so in any spirit of gambling. It has encouraged and taught temperate habits and actually proved by hard contested trials their value. In short, whatever great evils it has called forth have been physical evils, affecting that vital mechanism which it is the duty of the medical profession to study and comment upon. Hence surely even the most enthusiastic cyclist will allow that we need no excuse for pointing out and strongly deprecating evils which our knowledge and experience have shown us to undoubtedly exist.

TUBERCULOSIS IN THE CANINE SPECIES.

THE world-wide scourge of tuberculosis is daily attracting more attention and receiving closer investigation from the pathologist and sanitarian in regard to both man and animals. It is now a well-ascertained fact that a large number of the domesticated species have a receptivity for and are affected with this infectious disorder, and comparative pathologists are now not only engaged in finding out what species may be exempt, but the relative proportion of those likely to be infected in each species, the frequency of the lesions in different organs or tissues, the modes of infection, and the channels by which the virulent agent can obtain admission to the living body. Of course the ultimate aim of all this research is the limitation or absolute suppression of this serious devastating plague of man and beast.

It is probable that there is a unity in nature in the tuberculoses of the various species of animals liable to the disease, the differences in the morbid anatomy and experimental results being due to differences in the soil in which the germ develops or other influences to which it is exposed during development, and that avian, bovine, equine, canine, porcine, caprine, and other forms of tuberculosis, as well as the human disease, are all one and the same in their nature, are spread and maintained in the same way, and depend for their origin and development on the same agent. We are in doubt, however, as to the species in which the disease primarily originates or originated, whether in man, the ox or other animal; but the notion has been lately started that the human race is infected from the bovine species, and that it is only among people who largely consume the milk and flesh of cattle that tuberculosis most frequently and seriously prevails.

It has been stated that bovine tuberculosis is a disease of domestication—of overcrowding and bad ventilation; but though insanitary conditions may, and doubtless do, tend to the propagation and maintenance of the malady, it must not be overlooked that there are other influences in operation in its development and extension, or why should famous and valuable herds, which are kept in the most healthy state amid the most perfect sanitary surroundings that can be devised, be decimated by this disorder? And in Queensland, which possesses one of the finest climates in the world, there is heavy loss among cattle from tuberculosis, though these have spent the whole of their existence in the open air, in the scrub or other fastnesses of the Australian bush, and have never even been in a yard except when being branded as calves. Here the majority of cases of outbreaks have been clearly traced to pedigree stud-cattle which had been imported from England, and which were doubtless infected before being exported; so that heredity might be invoked as an influence largely instrumental in keeping up and extending tuberculosis.

However this may be, the fact that the malady affects dogs can be no longer denied, and the subject has been well discussed at a meeting of the Société Centrale de Médecine Vétérinaire of Paris on July 13th, when Professor Cadiot of the Alport Veterinary School brought it forward for the second time. He had already in November last communicated three observations relative to tuberculosis in the canine species, and in these cases the range of the disease was limited to the lungs and pleura. Since that time he had continued his inquiries, with the result that he had discovered eight more cases; in these he found the localisation of the lesions variable; in some of them the lesions were generalised. He gave a minute description of two of the cases; one of them in particular was interesting from the point of view of morbid anatomy, the other being valuable on account of the manner in which a diagnosis was arrived at. In the first case, the lesions were found to be chiefly seated in the thoracic and abdominal serous membranes, and they were of such a character that a superficial observer might easily have mistaken them for malignant neoplasms. In the second case the disease appeared in the form of pleurisy—a form which is relatively common in the dog; as in twelve cases of pleural inflammation which Professor Cadiot had met with in this species during one year, six were of a tuberculous nature. In this instance, as the animal only exhibited symptoms of intra-thoracic effusion, though tuberculosis was suspected, recourse was had to a test for the presence of the disease, two guinea-pigs being inoculated by having a certain quantity of the fluid withdrawn from the dog's chest injected into their abdominal cavity. One of them died some days afterwards, and the other was killed before the dog succumbed; in both of them generalised tuberculosis was well established. In this way a correct diagnosis was arrived at in a very obscure case during the life of the affected animal.

An analysis of the cases of canine tuberculosis observed in France and elsewhere shows that the disease presents itself in all the forms observed in the other domesticated animals. The relative frequency of the tubercular localisations in the different organs is shown in the following table, which was compiled from 49 observations, 28 of these being made by Jessen, of the Copenhagen Veterinary School, and 14 by Professor Cadiot himself:—

Tuberculosis of	the	lungs	31 cases.
,,	,,	kidneys	17 ,,
,,	,,	spleen	6 ,,
,,	,,	prostate	4 ,,
,,	,,	bladder and urethra...	1 ,,
,,	,,	epididymis	1 ,,
,,	,,	ovary	1 ,,

In nearly a moiety of these cases the liver, peritoneum and pleura were invaded by tubercle, and in nearly all there were multiple lesions of the lymphatic glands. Intestinal ulceration was rarely observed, even in the cases of mesenteric and peritoneal tuberculosis; from which it may be inferred that the bacilli, when they penetrate by the intestine, do not usually leave any trace of their passage through the mucous membrane. In the case of a dog, the body of which was examined by Müller, and which had been affected with pulmonary tuberculosis, there was a large cutaneous, tuberculous ulcer at the upper part of the neck; this sore had indurated margins, was covered with fine granulations, and a greyish, very fluid pus escaped from it. The adjacent lymphatic glands were indurated. These observations clearly establish the fact that in the canine as in the human species the pulmonary lesions predominate, so far as frequency is concerned, and that they are often primary—a fact in perfect accordance with the results derived from experimentation.

In the dog the ingestion of tuberculous matter only rarely yields positive results, while the inhalation of virulent dust is nearly always followed by pulmonary tuberculosis. With this animal, as with man, it would seem that infection through the air passages is the rule and inoculation by the digestive mucous membrane the exception. In the case of pet dogs, which are so frequently the inseparable companions of phthisical people, we can readily understand how infection by the lungs may easily occur; but this mode of infection could be effected in other circumstances, for dogs which frequent certain places—such as public-houses, cafés &c., where the sputa of phthisical persons are likely to fall on the floor and become dried—might become infected from inhaling dust that the sweeping of the ground raises in the lower strata of the atmosphere whence the dog derives the air it breathes.

THE LONDON POST-GRADUATE COURSE.

THIS course has for its object the extension of post-graduate teaching in London and the utilisation of the clinical material not required by the medical schools. The year is divided into three terms, each of eight weeks' duration. The spring term commences about the middle of January and ends in March. The summer term includes May and June, and the winter term commences about the middle of October and ends in December. The teaching is essentially practical in character and the demonstrations and lectures are fully illustrated by cases.

Practitioners can enter for any single course or for a half term or for a whole term at a composition fee. The single courses consist of either eight or sixteen lectures, and the fees are £1 1*s.* and £2 2*s.* respectively. There will be twelve separate courses in the next winter term, and the composition fee is £15 15*s.* Arrangements have been made with the associated hospitals, so that members can enter for practice at any hospital at the rate of £1 1*s.* a month, and ample time is allowed for this part of the work. The demonstrations and lectures of the winter term, which will commence on Monday, Oct. 10th, and end on Saturday, Dec. 3rd, will be given by the following members of the staffs of the associated hospitals and institutions—viz.:

Hospital for Consumption and Diseases of the Chest, Brompton.—By Dr. Pollock, Dr. Green, Dr. Mitchell Bruce, Dr. Percy Kidd, Dr. Biss and Dr. Sidney Martin. Wednesdays and Fridays at 4 P.M.

National Hospital for the Paralysed and Epileptic, Queen-square, Bloomsbury.—By Dr. Buzzard, Dr. Gowers, F.R.S., Dr. Ormerod, Dr. Beevor, Dr. Tooth, Mr. Victor Horsley, F.R.S., Mr. Brudenell Carter and Dr. Taylor. Thursdays at 2 P.M.

Hospital for Sick Children, Great Ormond-street, Bloomsbury.—By Dr. Sturges, Dr. Barlow, Dr. D. B. Lees, Dr. Lubbock, Mr. J. H. Morgan, Mr. Arbuthnot Lane, Dr. Colman and Mr. Wagstaffe. Thursdays at 4 P.M.

Royal London Ophthalmic Hospital, Moorfields. — By Mr. Marcus Gunn, Mr. W. Lang, Mr. Quarry Silcock, Mr. Lawford and Mr. J. S. Morton. Mondays at 1 P.M. and Wednesdays at 8 P.M.

Hospital for Diseases of the Skin, Blackfriars. — By Mr. Jonathan Hutchinson, F.R.S., and Dr. Payne. Tuesdays at 4 P.M.

Bethlem Royal Hospital for Lunatics.—By Dr. Percy Smith, Dr. Theo. Hyslop and Dr. Corner. Tuesdays at 2 P.M. and Saturdays at 11 A.M.

London Throat Hospital, Great Portland-street, W. — By Dr. Woakes, Mr. Stoker, Mr. W. R. H. Stewart, Dr. Law and Mr. Wilkin. Thursdays at 8 P.M.

Bacteriological Laboratory, King's College.—By Professor Crookshank. Fridays from 11 A.M. to 1 P.M.

Pathological Lectures at 101, Great Russell-street, Bloomsbury.—By Dr. Galloway. Mondays at 8 P.M.

The Parkes Museum, 74A, Margaret-street, Regent-street, W.—By Dr. Louis Parkes. Mondays at 4 P.M.

Midwifery and Diseases of Women, at 101, Great Russell-street, Bloomsbury.—By Dr. Dakin, Dr. Herman, Dr. Braxton Hicks, F.R.S., Dr. Potter and Dr. Amand Routh. Tuesdays at 8 P.M.

Central London Sick Asylum, Cleveland-street, Mortimer-street, W.—By Sir Alfred Garrod, F.R.S., Dr. Ord, Dr. Wilks, F.R.S., Mr. Bryant, Mr. Timothy Holmes, Mr. Jonathan Hutchinson, F.R.S., and Mr. Hopkins. Thursdays at 5.30 P.M.

A prospectus may be obtained on application to J. Fletcher Little, M.B., Secretary, 60, Welbeck-street, London, W.

THE METROPOLITAN ASYLUMS BOARD.

STATEMENT BY THE CHAIRMAN.

AT a meeting of the Managers of the Metropolitan Asylums Board, held on the 17th inst., the Chairman, Sir Edwin H. Galsworthy, referred to the complaints made that, notwithstanding the Board possessed all information as to the prevalence of disease in every part of the metropolis, and that the financial resources of London were at their call, they had failed to keep pace with the demands made upon them for hospital accommodation. He said that to completely vindicate the Managers it would be necessary briefly to review the events of the past few months. As early as May last the Ambulance Committee reported that the number of patients under treatment exceeded by 473 the greatest number on the corresponding day in any previous year, and estimated that the Managers would have to provide at least 1000 further beds, a large portion of which, to be of any use, would have to be ready before the middle of August. In less than a fortnight preparations were being made for no fewer than 994 patients, but the committee pointed out that at the then rate of increase this extra accommodation would be occupied in less than eleven weeks. All necessary steps were taken for the temporary accommodation of patients, and instructions were given to their architects, Messrs. Harstons, to look out for suitable land for hospital purposes, temporary or permanent. The consent of the Local Government Board to use the Gore Farm Hospital for convalescent patients was also obtained. The Managers were now nearing the end of their resources. They did not wish to erect temporary buildings at the Northern Hospital or at the Gore Farm Hospital unless absolutely compelled to do so. On being applied to, the Local Government Board expressed their regret at not being able to allow the Managers of the Asylums Board to utilise any of the London workhouses for the reception of fever patients. The statement of the chairman contains reference to the tardy action of the Local Government Board regarding the erection of a new Fever Hospital at Tottenham. Sanction was eventually obtained and he hoped the hospital would be ready for patients by the end of the month. Taking into consideration these circumstances, he thought the Managers could not be blamed for the deplorable fact of the sick poor lying in their crowded homes without proper accommodation or care and without the means of alleviating their sufferings which could be obtained in a hospital. The statement concludes: "The Metropolitan Asylums Board accepts no responsibility for a state of things which they condemn and deplore, but which they did all that it was in their power to do to avoid. The responsibility is with the Local Government Board—that body which it is expected will use its extensive powers to protect the public health and to alleviate the sufferings of the poor; the body on which the Managers, with their limited and crippled powers, ought to be able to rely for all due assistance in the performance of their arduous and responsible duties. The Local Government Board for three weeks—three precious weeks—left the

Managers' earnest application of June 22nd unattended to, or at least unanswered, and then caused still further delay by holding what, under the pressing necessities of the case, would seem to have been a formal and unnecessary inquiry before they gave their consent to the purchase of the Tottenham land, and it is in consequence of these delays that the hospital is not ready and that the Managers have been and are from day to day compelled to suspend the reception of many fever patients."

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

In thirty-three of the largest English towns 6442 births and 3643 deaths were registered during the week ending Sept. 17th. The annual rate of mortality in these towns, which had been 19·8 and 18·9 per 1000 in the preceding two weeks, further declined last week to 18·6. In London the rate was 16·9 per 1000, while it averaged 19·9 in the thirty-two provincial towns. The lowest rates in these towns were 9·7 in Huddersfield, 12·2 in Plymouth, 13·6 in Halifax and 13·8 in Bristol, to 23·4 in Hull, 23·5 in Gateshead, 25·0 in Derby, 27·7 in Preston and 30·1 in Salford. The 3643 deaths included 747 which were referred to the principal zymotic diseases, against 984 and 899 in the preceding two weeks; of these, 463 resulted from diarrhœa, 65 from scarlet fever, 59 from whooping-cough, 54 from measles, 54 from diphtheria, 50 from "fever" (principally enteric) and 2 from small-pox. The lowest death-rates from these diseases were recorded last week in Brighton, Wolverhampton, Huddersfield, Bristol and Halifax; and the highest rates in Leeds, Oldham, Hull, Salford and Preston. The greatest mortality from measles occurred in West Ham, Salford and Oldham; from scarlet fever in Salford, Cardiff, Oldham, Gateshead and Preston; from whooping-cough in Salford, Swansea and Birkenhead; from "fever" in Sunderland; and from diarrhœa in Manchester, Bolton, Gateshead, Derby, Sheffield, Leeds, Hull and Preston. The 54 deaths from diphtheria included 36 in London, 4 in West Ham, 3 in Liverpool and 3 in Cardiff. A fatal case of small-pox was registered in Leicester and one in Halifax, but not one in any other of the thirty-three large towns; four cases of this disease were under treatment in the Metropolitan Asylum Hospitals and 3 in the Highgate Small-pox Hospital on Saturday last. The number of scarlet fever patients in the Metropolitan Asylum Hospitals and in the London Fever Hospital at the end of the week was 3412, against numbers increasing from 3088 to 3339 on the preceding four Saturdays; 349 new cases were admitted during the week, against 461 and 414 in the previous two weeks. The deaths referred to diseases of the respiratory organs in London, which had been 114 and 125 in the preceding two weeks, further rose to 142 last week, but were 35 below the corrected average. The causes of 70, or 1·9 per cent., of the deaths in the thirty-three towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Croydon, Portsmouth, Cardiff, Sunderland, Newcastle-upon-Tyne and in six other smaller towns; the largest proportions of uncertified deaths were registered in Wolverhampton, Norwich, Liverpool and Huddersfield.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 15·7 and 16·6 per 1000 in the preceding two weeks, further rose to 17·0 during the week ending Sept. 17th, but was 1·6 per 1000 below the mean rate during the same period in the thirty-three large English towns. The rates in the eight Scotch towns ranged from 8·6 in Perth and 11·2 in Leith to 18·8 in Glasgow and 19·0 in Greenock. The 474 deaths in these towns included 26 which were referred to diarrhœa, 13 to scarlet fever, 12 to measles, 7 to diphtheria, 7 to "fever," 5 to whooping-cough and not one to small-pox. In all, 70 deaths resulted from these principal zymotic diseases, against 67 and 61 in the preceding two weeks. These 70 deaths were equal to an annual rate of 2·5 per 1000, which was 1·3 below the mean rate last week from the same diseases in the thirty-three large English towns. The fatal cases of diarrhœa, which had declined from 34 to 24 in the preceding two weeks, rose again to 26 last week, of which 16 occurred in Glasgow and 4 in Dundee. The deaths referred to scarlet fever, which had been 14 and 10 in the previous two weeks, rose again to 13 last week, and included 7 in Glasgow, 2 in Edinburgh and 2 in Aberdeen. The 12 fatal cases of measles exceeded by 6 the number in the preceding week and included 7 in Edinburgh and 4 in Glasgow. The deaths from diphtheria, which had been 4 and 6 in the preceding two weeks, further rose to 7 last week, of which 3 occurred in Glasgow, 2 in Dundee and 2 in Perth. The 7 fatal cases of "fever" also showed a further increase upon recent weekly numbers and included 3 in Glasgow and 2 in Paisley. Four of the 5 deaths from whooping-cough were recorded in Glasgow. The deaths referred to diseases of the respiratory organs in these towns, which had been 57 and 59 in the preceding two weeks, further rose to 71 last week, and exceeded by 18 the number in the corresponding week of last year. The causes of 44, or more than 9 per cent., of the deaths in these towns last week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had increased in the preceding four weeks from 19·5 to 28·3 per 1000, declined again to 23·3 during the week ending Sept. 17th. During the first eleven weeks of the current quarter the death-rate in the city averaged 23·5 per 1000 against 17·4 in London and 16·3 in Edinburgh. The 156 deaths in Dublin during the week under notice showed a decline of 34 from the number in the preceding week, and included 18 which were referred to diarrhœa, 4 to "fever," 1 to measles, 1 to whooping-cough, and not one either to small-pox, scarlet fever or diphtheria. In all, 24 deaths resulted from these principal zymotic diseases, equal to an annual rate of 3·6 per 1000, the zymotic death-rate during the same period being 2·8 in London and 2·2 in Edinburgh. The fatal cases of diarrhœa, which had increased from 9 to 28 in the preceding three weeks, declined again to 18 last week. The deaths referred to different forms of "fever," which had been 2 and 4 in the preceding two weeks, were again 4 last week. The 156 deaths registered in Dublin last week included 39 of infants under one year of age and 22 of persons aged upwards of sixty years; the deaths both of infants and of elderly persons showed a marked decline from those recorded in recent weeks. Only one inquest case and no deaths from violence were registered during the week; and 48, or nearly a third, of the deaths occurred in public institutions. The causes of 19, or more than 12 per cent., of the deaths in the city last week were not certified.

THE SERVICES.

MOVEMENTS OF THE MEDICAL STAFF.

Surgeon-Colonel Markey has embarked for Madras on the termination of his leave of absence. Surgeon-Colonel Preston has resumed duty as Principal Medical Officer at Belfast. Surgeon-Captains Bean and Addison have embarked for Bombay to perform a tour of duty in India. Surgeon-Captains Westcott and James have embarked for Hong-Kong, and Surgeon-Captain Allport for Ceylon. Surgeon-Major Franklin has joined for duty at Eastbourne, and Surgeon-Captain Cocks at Brighton. Surgeon-Major Stevenson has been granted leave from India. Surgeon-Captain Woods has arrived in Alderney for duty. Surgeon-Lieutenant Hughes has rejoined at Preston, and Surgeon-Lieutenant Holt at Gosport. Surgeon-Captain Magrath has rejoined at Portsmouth from trooping duty and Surgeon-Captain Elderton from Portland. Surgeon-Captain Mumby is on leave prior to embarking for India, and Surgeon-Captain Gubbin is on leave awaiting embarkation for Bermuda. Surgeon-Captain Leishman has been granted sick leave from Bengal. The undermentioned officers of the Army Medical Staff who are at present serving on the Bombay Establishment have, on completion of their six years' tour of Indian service, been selected to return to England during the trooping season of 1892–93:—Surgeon-Lieutenant-Colonel W. F. Burnett; Surgeon-Captains R. J. A. Durant, J. W. B. Buchanan, S. J. W. Hayman and R. J. D. Hall.

INDIAN MEDICAL SERVICE.

H.E. the Governor in Council is pleased to appoint Surgeon-Captain H. W. Stevenson to act as Medical Officer on his

Excellency's staff during the absence of Surgeon-Major H. Martin, M.B., on privilege leave. Surgeon-Lieutenant W. E. A. Armstrong, I.M.S., to do duty in the Southern district. Surgeon-Lieutenant-Colonel D. D. Cunningham, Officiating President of the Committee of Management of the Zoological Garden, Calcutta, is confirmed in that appointment, vice Sir John Edgar, K.C.I.E., C.S.I., resigned. Surgeon-Major H. K. McKay, Officiating Civil Surgeon, Nagpur, is appointed to be Honorary Surgeon, Nagpur Volunteer Rifle Corps, vice Surgeon-Major G. F. A. Harris, I.M.S., on furlough, and who has been placed on the rolls as a supernumerary. The Queen has approved of the retirement from the Service of Surgeon-Lieutenant-Colonel John Edwd. Charnock Ferris, Bengal Medical Establishment (dated Aug. 1st, 1892).

NAVAL MEDICAL SERVICE.

The following appointments have been made:—Staff Surgeon Alfred Thomas Corrie has been appointed to the rank of Fleet Surgeon in Her Majesty's Fleet (dated Sept. 8th, 1892). Surgeons: Herbert P. Shuttleworth to the *Pembroke*, additional, to be lent to the *Briton* for the training season, from Sept. 26th; Richard A. Fitch, to the Royal Marine Artillery, Portsmouth; Charles J. Fyfe to the *Pembroke*, additional, for disposal; Edward M. Dobinson to the *Wildfire*, additional, for service at Walmer Depôt; Octavius S. Fisher to the *Defiance*, additional, for disposal; and William M. Craig to the Plymouth Division Royal Marines (all dated Sept. 15th, 1892); A. M. Page to Plymouth Hospital, and Daniel J. P. M'Nabb to the *President*, additional, for three months' study (both dated Sept. 22nd, 1892). M. W. Roe to be Surgeon and Agent at Helford Passage (dated Sept. 20th, 1892).

VOLUNTEER CORPS.

Artillery: 1st Lancashire: Surgeon-Lieutenant T. M. Dawson to be Surgeon-Captain (dated Sept. 17th, 1892).—2nd Glamorganshire: Surgeon-Lieutenant J. H. Rees, M.D., to be Surgeon-Captain (dated Sept. 17th, 1892).—*Royal Engineers:* 1st Lancashire: John Morgan Whiteford, Gent., to be Surgeon-Lieutenant (dated Sept. 17th, 1892).—*Rifle:* 2nd Volunteer Battalion, the Sherwood Foresters (Derbyshire Regiment): Surgeon-Captain J. Knox to be Surgeon-Major (dated Sept. 17th, 1892).—5th (Ardwick) Volunteer Battalion, the Manchester Regiment: Brigade-Surgeon-Lieutenant-Colonel J. Armstrong resigns his commission; also is permitted to retain his rank, and to continue to wear the uniform of the Battalion on his retirement (dated Sept. 17th, 1892).

THE SICKNESS AND MORTALITY AMONG YOUNG SOLDIERS IN INDIA.

Our Indian contemporary, the *Pioneer* of the 31st ult., gives some information on this point, to which we may briefly refer. It had recently instituted a comparison between the Gordon Highlanders, a seasoned regiment, and the Argyll and Sutherland Highlanders, who arrived in India last Christmas. Both regiments are in the Simla Hills. Since the latter regiment arrived at Dugshai on March 21st last there have been seventy-four cases of enteric fever, nine proving fatal. In a detachment of 115 men of the Derbyshire regiment, living a little lower down the hillside than the Highlanders, there have been only two cases of enteric fever. The soldiers of this detachment are alleged to have been acclimatised by residence in India. The West Yorkshire regiment, which went out to India in 1878, was last year stationed at Dugshai and had only ten or eleven cases of typhoid fever. Although it has been abundantly shown that new arrivals in the country are very liable to be attacked with this disease it does not follow that the station, Dugshai, is not responsible, from some cause or other, for the outbreak this year; and it would, in our opinion, be well worth undertaking a thorough investigation into everything connected with the conservancy, water and milk supplies, and the sanitary condition of that station.

DESIGNATION OF MEDICAL OFFICERS.

The designation of the Principal Medical Officers of Her Majesty's Forces in Madras and Bombay is to be altered to Principal Medical Officer of Her Majesty's Forces in the Madras Army and Bombay Army respectively, so as to distinguish them readily from District Principal Medical Officers located in the towns of Madras and Bombay.

Surgeon-General Longmore's treatise upon Ambulance Transport has, we understand, been undergoing revision, and will shortly appear in its revised form with all the modifications and improvements effected up to date.

Correspondence.

"Audi alteram partem."

"THE LANCET COMMISSION ON SANITATION IN RELATION TO THE LAW AND PRACTICE OF HOUSE-LETTING."

To the Editors of THE LANCET.

SIRS,—I have lately read with great interest the articles and correspondence which have followed the publication in your issue of Aug. 20th of the very admirable report of THE LANCET Special Commission on the above subject. To the supreme importance of this matter the Teignmouth Local Board is keenly alive, and a system of inspection, certification and registration, conducted on lines very similar to those in force at Eastbourne and Folkestone, has for some time been satisfactorily working in this district. A thorough and exhaustive inspection is performed by the sanitary inspector in person on receipt of written application from the householder. This is done gratuitously, and the inspector advises as to the works necessary to secure a certificate, which is only granted when the requirements enumerated in Dr. Sherwood's article are complied with. The incorporation of these requirements in the printed certificate is an improvement for which I owe a debt of gratitude to Dr. Sherwood, and which I shall endeavour to persuade my board to adopt without delay. The register of certified houses is kept in the clerk's office and is open to inspection, a conspicuous painted notice-board to that effect being affixed to the wall of the market-place. Further, every medical practitioner and every house agent in the district are provided with a list of certified houses, corrected quarterly, in the clerk's office. The advantages of this plan are too obvious to call for comment. This system was inaugurated in Teignmouth in 1889, and the earliest certificate bears date Nov. 28th of that year (so that we may justly claim to have anticipated Eastbourne in this much-needed work of reform by a few months), and numbers of private householders, in addition to a large majority of the lodging-house keepers, have gladly availed themselves of the facilities thus offered for ascertaining with certainty the sanitary condition of their homes.

The following brief statement of facts will help to emphasise the urgent necessity of extending the above or some similar system to all towns. From October, 1889, to the end of 1891 the sanitary arrangements of 232 houses were carefully examined. Taking the results of the smoke test alone, in only eighteen of these 232 were the drains found smoke-tight; in other words, 92·25 per cent. of the houses were liable to contamination with sewer gas. As I am not aware of any very cogent reason for believing that the condition of house sanitation in my district is markedly inferior to what prevails in other parts of the country, I am inclined to suspect that 90 per cent. may fairly be supposed to represent the proportion of insanitary houses in the average watering-place. It would be interesting to know whether the experience of Eastbourne and Folkestone supports this idea, which, as I am well aware, is a generalisation on very insufficient data; it seems to me, however, not unlikely to be true, and if true, can anything be more appalling? Short of parliamentary action on the lines of Dr. Farquharson's Bill, the only remedy for such a condition of things is that all, municipal bodies and individuals alike, should realise that a positive knowledge, a certainty, of the perfection of his house sanitation is a duty which each man owes not only to himself but also to his neighbour. Moreover—and this is likely to be a more generally convincing argument—attention to the aforesaid duty is, at any rate in watering-places and health resorts, a form of honesty which is most emphatically "the best policy."

I am, Sirs, yours faithfully,

F. CECIL H. PIGGOTT, M.D., B.C. & B.A. Cantab.,
Medical Officer of Health.

Teignmouth, South Devon, Sept. 19th, 1892.

P.S.—One expects, with reason, before many years are

past, to observe a diminution in the incidence and mortality of zymotic disease in towns where the registration system is widely extended and efficiently carried out.

THE NOTIFICATION OF DISEASE.

To the Editors of THE LANCET.

SIRS,—There is a point concerning this subject that I should like to ventilate, as it is an important one to a large section of medical men. Some months ago a medical gentleman in the parish of St. George's, Hanover-square, asked me to see a case of diphtheria with him and I did so. The child was choking, and the only thing that could be of any avail was tracheotomy or intubation; and I left the house after giving that opinion, and I believe that a surgeon was applied to and that an operation of some kind was performed. Some few weeks afterwards I was much surprised to receive a curt official note from the office of the medical officer of health for the said parish, inquiring why I had not notified the case to him, as I was bound to do. I replied that I never did notify; that I always left that duty to the medical man in charge. The answer I received to this was that the Act requires everyone who is called in to a case of any infectious disease scheduled under the Act to notify, and I was pointed to the wording of the Act, which reads that "everyone attending or called in to visit shall" &c. I was further politely informed that as I had sinned in ignorance no action would be taken on this occasion. In other words, I must not be a bad boy again, or I should receive a whipping.

Now there is no doubt that the strict letter of the Act is in accord with the contention of the medical officer of health of St. George's, Hanover-square, but it is obvious to me that this strict interpretation of it was not intended by its framers; for see what it leads to. In the case I have given three of us saw the case and we all were in duty bound to notify. In another instance the gentleman who first saw the case notified it as scarlatina; I came next and thought it was enteric fever; a friend who saw the gentleman in my absence did not know what it was, and after a few days it turned out to be influenza. Take one other illustration. I saw in consultation a bad case of scarlatinal nephritis in the fourth or fifth week after the fever. The boy was peeling freely. He was infective enough certainly. According to the medical officer of St. George's, Hanover-square, I ought to have notified. If so, there would be no end to the work of the medical officers of health. Their energies would be eaten up in finding out who was who and what was what. But, Sirs, I would interpret the letter of the law thus: everyone "*attending* or *called in to visit*" is a legal periphrasis deliberately intended by the draughtsman to cover his man—viz., the doctor first called in to see the patient—and very wisely so worded, in my opinion, for there are many cases where there is no *attendance*, the doctor is merely called in to say what a disease is, and he never sees the case again. The only instance in which I have myself notified was a case of this sort. There was no one in *attendance*, but I was covered by the Act, being "called in to visit," so I notified. I venture to urge, Sirs, most strongly, that this is the reasonable and right interpretation of the Act as regards the duty of those called in as consultants, and indeed I have reason to know that a large number of medical officers of health do so construe the meaning of the Act; but there is at any rate one, and he unfortunately no mean authority, who thinks otherwise. The matter requires ventilation.

I am, Sirs, yours faithfully,

Weymouth-street, Sept. 20th, 1892. J. F. GOODHART.

THE CHOLERA SCARE AT EYEMOUTH.

To the Editors of THE LANCET.

SIRS,—I beg to forward you the particulars upon which, so far as I am aware, the report of the cholera scare in Eyemouth has been founded. When recently it became known here that the schooner *Spray* was chartered to Eyemouth with a cargo of old empty herring barrels from the cholera-infected port of Hamburg the inhabitants became greatly alarmed. For weeks past, however, in accordance with the Infectious Diseases Act, everything has been done in the way of sanitation and general precautionary measures, and the local authority, acting on instructions from the Board of Supervision, had promptly devised means to have all ships from foreign ports boarded by the medical officer of health as soon as they should be reported to him. On the 13th inst. the *Spray* was reported in the offing and immediately intense alarm took possession of a considerable portion of the inhabitants and the opinion generally prevailed that if she came into port the risk of disseminating the choleraic virus would be by no means inconsiderable. Being unable to secure a boat and board the *Spray* outside, she was allowed to come into the harbour, and so soon as a berthing was obtained I got aboard, accompanied by the Customs officials. There was, or had been, no sickness on board, and so she was accordingly passed. The tanks were empty and no bilge-water had been made, and beyond ordering her hold to be fumigated nothing more was done. Nevertheless, a brisk controversy has taken place in regard to the disposal of the cargo, many people asserting that a public danger would be occasioned to health through the landing of this possibly infectious material. A meeting of the local authority was held to consider the situation, and it was at first resolved to ask of the captain five hours' notice of the landing of the cargo. It seems, however, that no purchaser could be found, so strong was the feeling in the town; as the result of later deliberations between Captain Wilson and the local authority, however—in view of the intense public opposition, and as remuneration for any loss the master of the *Spray* might sustain—a number of townspeople subscribed and made a present in money to him, at the same time stating that the vessel should leave this port by the next tide. Owing to some of his crew having left, the schooner *Spray* only put out to sea this morning.—I am, Sirs, yours faithfully,

JAMES FORSYTH,

Eyemouth, Sept. 17th, 1892. Medical Officer.

"THE ETHICS OF OPIUM AND ALCOHOL."

To the Editors of THE LANCET.

SIRS,—With reference to Dr. Mouat's very interesting article on the "Ethics of Opium and Alcohol,"[1] I should like to point out that I have had very similar experiences of the pick-me-up action of opium and have also given what I believe to be a very complete explanation of the way in which it produces the effects in question. Shortly stated, my explanation amounts to this: that opium, by clearing the blood of uric acid, frees the circulation in the small vessels throughout the body, and the effect of this on the nerve centres and muscles, for instance, is to bring about a state of affairs in which all their functions are performed with the greatest ease and smoothness, doubtless because their metabolism is well and easily maintained. But if the opium is not continued there comes what I have called a rebound; the urate begins to find its way back into the blood in greater quantity than before, because the amount previously cleared out of the blood was stored up in the body and not eliminated. The arterioles are now contracted just in proportion to their previous dilatation, the pulse is slow, the tension high, the circulation through the brain and muscles is deficient and lethargy of mind and body results.

I have often used opium as a pick-me-up and it is most efficient, and I have pointed out that many well-known persons appear to have had similar experiences and that it is a great fallacy to suppose that men are seeking for oblivion when they take opium, cocaine and drugs of similar action; but I know also that it has a rebound, and that just as my mental and bodily powers are, say, 50 per cent. above normal during its primary action, so will they be 50 per cent. below normal during its secondary action (rebound). During the primary action I may have been able to perform feats of body or mind which were otherwise, as far as I was concerned, impossible. The Sikh infantry regiment mentioned by Dr. Mouat might by their magnificent march under opium have saved their own lives and those of many others. Were they wrong in resorting to it to enable them to do this? I have also pointed out that when a small dose of opium has been taken as a pick-me-up the rebound can be almost completely averted by taking one or two doses of salicylate, as this eliminates the urates stored up during the primary action of the opium, and, the subsequent excess of urate in the blood being thus prevented, there is no rebound. This action of a salicylate affords a further proof that the action of opium first as a pick-me-up and then as a depressant is entirely due to its effects on the alkalinity of the blood, which in turn determines the amount of urate it can hold in

[1] THE LANCET, Sept. 17th, p. 658.

solution, and so the relative contraction or dilatation of all the arterioles of the body.

I am, Sirs, yours faithfully,

Brook-street, W., Sept. 19th, 1892. ALEXANDER HAIG.

To the Editors of THE LANCET.

SIRS,—I should be glad if Dr. Mouat would specify the sentence in which occurs "the insinuation that the corruption of the subordinate agents of the prisons caused the smuggling of opium in such quantities as to cause a prejudicial influence on death-rates." Dr. Pringle, I observe, suggested that the smuggling exerted an opposite influence. What is Dr. Mouat's explanation of the apparent discrepancy in his vouching "absolutely for the correctness of the returns themselves," and yet saying of one of them, "This record again I believe to be inexact"?

Dr. Mouat says "the diseases chiefly influenced by opium were dysentery and diarrhœa," and that one-fourth at least of the whole mortality was due to dysentery alone. Is this an approval of the suggestion that opium predisposes to dysentery?—I am, Sirs, yours faithfully,

J. BARCROFT ANDERSON, M.B., B.Ch. Dub. Univ., &c.

Dublin, Sept. 20th, 1892.

THE MIDWIVES' REGISTRATION BILL.

To the Editors of THE LANCET.

SIRS,—In THE LANCET of Sept. 17th you publish a letter from Dr. Alderson relative to "Midwives and Abnormal Cases." Will you allow me to point out some of the errors he has fallen into? He opposed the late Midwives Bill, he says, because it would have certificated hopelessly incapable people; but he has forgotten that there was a clause requiring proof of a fair amount of knowledge before registration. In the case he gives, supposing the hopelessly ignorant woman who assumed the name of midwife had had her name placed on the Midwives' Register, it would have changed the verdict into one of culpable negligence; and even if she had succeeded in persuading the jury that registration did not imply necessarily knowledge, she would still have had her name removed from the Register and have experienced that amount of punishment now noticeable by its entire absence. He thinks that "midwives should only be allowed to act under the eye and responsibility of a medical man," and that a poor patient should be attended by the club or parish doctor. This might be desirable. These women have the opportunity of so doing now, and will not have the one while they either cannot or will not have the other; at any rate, they do not have doctors to attend them, and indeed it would be quite impossible for doctors to do all the "cheap" work thus thrown on them and live on the results. I would ask him why a medical man should bear the misdeeds of an "obstetric nurse" on his shoulders merely because he was engaged by a patient to assist in case of the requirement of his services. He would have to wait till sent for and then be responsible for not having come sooner. Who is to pay the expense of this arrangement, for which alternative Dr. Alderson has thrown his weight against the Bill? The patient can hardly pay the midwife, let alone paying retaining fees or fees for services rendered. The fact is that the poorer classes, in their very laudable endeavours to be independent, prefer, in their ignorance of the risks they run, to be attended by a person whose charges come within their means. It cannot be denied that an immense number of poor people are attended by incompetent or untrained women. I have in front of me letters just received from two medical men practising in a manufacturing town of 60,000 inhabitants, mostly poor, and these are nearly all attended (so they tell me) by untrained women because they cannot pay doctors' fees. Dr. Alderson has opposed a much-needed Bill for fear of a provision in it which could not have been left out and which would have been remedied by lapse of time in a few years.

I am, Sirs, yours faithfully,

F. ROWLAND HUMPHREYS.

Fellows-road, N.W., Sept. 20th, 1892.

THE SANITARY CONDITION OF WELLINGTON, NEW ZEALAND.

To the Editors of THE LANCET.

SIRS,—In THE LANCET of June 11th appears a critique upon the sanitary condition of Wellington, in which the writer states that "dirt, disease and death have given this city an unenviable notoriety among the cities of the colony." This is painfully unjust, as my report most clearly proved. Previously to 1890 there was comparatively little typhoid fever. During that year there were 109 cases, 50 of which occurred in a small area of several blocks of buildings in the Te Clio end of the town. In 1891 there were 107 cases and 57 came from this same area; while during the first quarter of 1892 there were 62 cases and 56 came from exactly the same locality, leaving 6 only from the remaining part of the city. The area under notice covers a space of about 100 acres, while the populated area of the city is 1500 acres. It is obvious therefore that only one little spot, one-fifteenth of the town area, deserves the severe criticism of your correspondent; the rest of our town enjoys comparative immunity from all forms of zymotic disease. My report clearly shows this; and of all the things said of Wellington, sanitation was the most just and at the same time the most complimentary, for it freed fourteen-fifteenths of the city from the cloud that hung over it. New arrivals who have read the scathing criticism of this our empire city must be very pleasurably surprised at the general cleanliness of our streets, the elevation of our houses on the hill-side and the ample space around each, admitting light and air and sunshine in rich abundance and surpassing purity. The affliction of a prince, not the zymotic mortality, has given Wellington a reputation almost wholly undeserved. Defects in house and town drainage may occur anywhere and at any time. Local house-drain defects caused the illness of Lord Cranley and local town defects caused the epidemic of Te Clio. The former of these have been successfully remedied and the latter are being remedied by the Council, who, despite the aspersions cast upon them, have overcome many difficulties and accomplished much in sanitary reform.

I am, Sirs, yours faithfully,

Wellington, N.Z., Aug. 11th, 1892. W. A. CHAPPLE.

THE PATHOLOGY OF DROPSY.

To the Editors of THE LANCET.

SIRS,—At the present time, when the pathology of dropsy is being so much discussed, the subjoined case of dropsy without albuminuria following scarlet fever may be worth recording:—On Sept. 5th I was called to see L. M——, a little boy aged six, who was suffering from well-marked scarlet fever; throat, tongue and rash were all typical; the temperature was 102°. The case ran an ordinary course, and by Sept. 9th the temperature was normal and the rash had almost disappeared. I had tested the urine daily as a matter of routine, but had found nothing abnormal. On Sept. 10th when I called I found considerable swelling of the whole face, especially marked on the upper lip, and the complexion pale and rather waxy-looking; there was also swelling of the left leg and slightly of the scrotum; the temperature had run up to 100·4°. I expected to find the urine highly albuminous, but was surprised to see, on testing by boiling, that there was no precipitate, nor was there any reaction with either nitric or picric acid. The amount of urine passed was unfortunately not measured, but the patient's mother stated that he had not passed nearly as much as usual. I ordered a mixture containing digitalis, and on the next day (Sept. 11th) the swelling had nearly disappeared, while to-day (Sept. 12th) there is none discoverable and the waxy complexion has given way to a more healthy colour. I have examined the urine at different times, before and after meals, but have quite failed to find any albumen. I offer no explanation of these facts, but content myself with recording them.

I am, Sirs, yours faithfully,

Southend, Sept. 13th, 1892. W. A. MURRAY, B.A., M.B.

THE RADICAL CURE OF INGUINAL HERNIA.

To the Editors of THE LANCET.

SIRS,—If it were admitted that a particular method of obtaining a definite result was the best, then I take it many methods of attempting to do so would not be recommended; but for the radical cure of hernia several operations are advocated, and no one has been adopted as the best. In drawing attention to another, the peculiarity of which is the introduction of a new principle, I hope I have not done injustice to any other procedure. I congratulate Mr. Burghard upon the success of his eight cases of radical cure by Bassini's operation, but I still think that by Halsted's recurrence is less

likely to occur than by any other plan with which I am acquainted. Naturally I cannot expect Mr. Burghard to agree with me, as he is enthusiastically in favour of another operation, but I should be very much gratified if I could persuade him to give Halsted's a trial.

I am, Sirs, very truly yours,

Newcastle-on-Tyne, Sept. 19th, 1892. FREDERICK PAGE.

"PSYCHO-THERAPEUTICS."

To the Editors of THE LANCET.

SIRS,—In Dr. Robertson's article on "Psycho-Therapeutics" in THE LANCET of last week he corroborates my views on the subject, as stated in the summing up of my article which he criticises. For speaking of certain occult power which some few persons possess over the minds of others through suggestion, he says "the possession of this power by one or two members is of very little value to the profession as a whole." Just so. He might have added—and there are few upon whom this power has any influence. I stop at "relics," "magnetic healing" and tricks with "cold water," "bread pills" &c., believing that in the end they can only do harm. Nor have I any faith in hypnotism, which is merely another form of the miserable farce, mesmerism, which in my youth wrecked poor Dr. Elliotson's reputation. But in the observations in Dr. Robertson's article respecting certain "physicians of celebrity" and family doctors and their success in the treatment of disease I think he corroborates my views; for by their tact and personality that "faith and hope" of which I have spoken are created in their patients which will enable them "to make at least a brave stand against their foes." I still believe, therefore, and regret that "he who expects more than this from the influence of the mind on the body in treating disease will be disappointed."

I am, Sirs, yours obediently,

Bishop's Teignton, South Devon, Sept. 20th, 1892. WM. DALE.

"OUR DUTY TO OUR PATIENTS."

To the Editors of THE LANCET.

SIRS,—In the last issue of THE LANCET I notice a letter on this subject signed "Spes," which calls attention to the desirability of having some simple common-sense rules printed for circulation on various health subjects which would educate the working classes on matters pertaining to the health and comfort of their children and themselves. It is not so generally known as it ought to be that there is an institution whose special work is in this direction—viz., the Ladies' Sanitary Association, of 22, Berners-street, W. They publish a large variety of leaflets, cards, tracts &c. on all health subjects, including those which "Spes" mentions as most needed: "The Care of Mothers recently Confined," "How to Wash and Dress the Baby," "How to Feed the Baby." A list of these useful and inexpensive publications can be obtained by application to the Secretary, Miss Rose Adams. I am, Sirs, yours truly,

J. SINCLAIR HOLDEN, M.D., M.O.H.

Sudbury, Suffolk, Sept. 20th, 1892.

ADULTERATION AND THE INSPECTION OF MEAT: RECENT BELGIAN LEGISLATION.

(FROM OUR SPECIAL CORRESPONDENT.)

THE Belgian Government has been working quietly but very earnestly during the last few years, with the result that the laws framed to ensure the wholesomeness of alimentary substances have been considerably improved and strengthened. It is a difficult and tedious matter to analyse the legislation of a country, even if such analysis is limited to one single subject. Considerations of space make it impossible to give a complete synopsis of the Belgian law on markets, slaughter-houses, and on the adulteration of food. But in the laws recently enacted there are such good points that these improvements at least merit full notice. For ampler information the reader must consult the text of the laws. Thus the entire law on the adulteration of alimentary substances, published in the *Moniteur Belge* of Aug. 18th and 19th, 1890, might be studied with advantage. For the present purpose, however, it may suffice to merely point out the more important clauses. Article 1, Clause A, authorises the inspection of the preparation and the manufacture of substances intended for food. In many countries inspection only is permitted of objects actually offered for sale, whereas it is the process and methods of manufacture, the utensils and materials employed, which should be carefully watched. Article 2 states that: "The burgomaster and the agents of the Government whose mission it is to see to the execution of the duties prescribed by the present law may freely examine the shops, warehouses and any place whatsoever where alimentary or medical substances are sold during the whole of the time that these places are open to the public. They may also examine during the same hours the depôts annexed to these shops or warehouses, even if these depôts are not open to the public; such places as serve for the manufacture and preparation of alimentary substances destined to be sold, though these places are not open to the public, are equally subject to such visit or inspection, and that at all hours."

This clause embodies a very important innovation. On discussing the matter with some of the authorities the latter expressed the opinion that the clause gives inspectors the right to visit the kitchen of restaurants and see how the food is cooked and whether it is in good condition. It is precisely in restaurants that the law up to the present day has failed to protect the public. Meat, fish &c., when sold in the market, may be in a perfect condition, but when these things have sojourned some time in a high-class restaurant and then, not having been utilised, are sold at a discount to the owner of a cheap restaurant, where they may be kept for some considerable time longer before they are cooked, their condition is far from offering that security to health which they possessed when first purchased. It is now actually proposed to organise a service of inspectors to control and watch the kitchens &c. of restaurants. If resistance is offered to inspection and the taking of samples prevented, a fine of £2 to £3 can be inflicted; and if within the following two years the offence is repeated a fine of £20 can be inflicted, with a term of imprisonment of from eight days to two months. The last clause of the Act is also an innovation and important in its way. It states in Article 8: "Every two years the Government shall present to the Chambers a report of measures it has taken to ensure the execution of this law and the effects that have resulted therefrom." This last clause is a prudent precaution to prevent the law remaining a dead letter. This Act is known as the Law of Aug. 4th, 1890.

The *Moniteur Belge* of Dec. 17th, 1890, contains a report to the King by the Minister of Agriculture, Industry and Public Works, who is the highest sanitary authority in Belgium. This report, dealing with the application of the above law, comments upon the difficulties arising from the trade in margarine, the use of saccharin, of colouring materials and of dangerous utensils and substances for packing, cooking and preserving food and drink. M. Léon de Bruyn, the Minister of Agriculture, in his report, remarks that "it cannot be said public health suffers, for margarine is not in itself an injurious alimentary substance; but the material interests of the consumers suffer, since they pay the price for natural butter and receive in exchange only butter mixed with grease of inferior value. From this it results that our agriculturists also suffer serious injury, for the farmers find that one of their principal products is driven out of the markets by a disloyal competition."

In the same way, with regard to saccharin, though this may not be a poisonous substance, it is a fraud on the public to sell sweets, pastry &c. apparently made with sugar when in reality they are sweetened only with saccharin. In response to this report another law or decree, bearing the date of Dec. 10th, 1890, was signed by the King. This law defines margarine as any sort of butter which has not been manufactured exclusively with milk. Then there follows a stipulation similar to the English Margarine Act, by which all margarine offered for sale must be labelled very distinctly, both in Flemish and in French, with the word "margarine." All cases or barrels containing margarine must also be inscribed with the name and address of the manufacturer. On all bills of lading, invoices &c. the denomination "margarine" must be employed. The same penalties as those mentioned above as the punishment for offering resistance to inspectors apply to any neglect in the observance of those regulations governing the margarine trade.

Another decree, bearing the same date, quotes the opinion of the Royal Academy of Medicine :—"Saccharin is not an alimentary substance, consequently it does not possess for the consumer the useful properties of sugar. It is necessary that the manufacturer or tradesman in substances sweetened with saccharin should inform his customers that he has employed this substance."

On the strength of this opinion the decree orders that all articles—beer, pastry, sweets, liquors, syrups, jams, chocolate &c.—sweetened with saccharin or any similar substance shall bear a large label indicating the fact. That similar announcements shall be displayed on the shops and counters where such objects are sold; and, in fact, the same measures are taken and penalties enforced against the substitution of saccharin for sugar as are enacted to prevent margarine being sold instead of butter. Then follows a third decree by which the employment of any injurious colouring matter in the preparation of articles of food is absolutely forbidden; and all manufacturers selling coloured articles of food, liquors, sweets &c. must affix to such articles their names and addresses. Finally, a fourth decree, also bearing the date of Dec. 10th, 1890, forbids the employment of any utensil, vase, coloured paper &c. in contact with any edible substance if in any way likely to poison such substance. Article 2 states that "it shall be considered as notably harmful and injurious to health and as opposed to the present decree to employ lead, zinc, alloys, soldering, enamels containing these metals, or arsenic, antimony and its compounds, or poisonous colours." Exception is made in the case of tin boxes used for preserves if the soldering is done externally and if the alloy does not exceed 10 per cent. of lead. All apparatus used for cooking purposes, such as metallic and enamelled saucepans &c., must bear in large, ineffaceable characters the name and address of the manufacturer, and it is absolutely forbidden to sell any such utensil if it is made with toxic or poisonous metals &c.

The next law to be noticed deals with the trade in meat. It was published in the *Moniteur Belge* of Feb. 11th, 1891, and is known as the Law of Feb. 9th, 1891. It establishes special enactments to regulate the slaughtering of animals and the trade in meat and poultry. All animals, including pigs, destined to provide butcher's meat must be examined after they are slaughtered by an expert inspector nominated by the communal administration, or, in default, by the Government. Veterinary surgeons are to be selected in preference, but in districts where the services of such qualified persons are not available the expert inspector who is not a veterinary surgeon must call in a veterinary surgeon in all but certain specified cases. Local authorities may also decide that animals shall be examined before as well as after they are slaughtered. A slaughtered animal must be examined not later than twelve hours after its death in summer and twenty-four hours in winter. If the flesh of the animal is unwholesome a written certificate must be given to this effect. If the meat is wholesome various parts of the carcase must be stamped by the inspector. This practice, prevalent in France as well as in Belgium, affords a good and practical guarantee to the public. The purchaser on entering a butcher's shop has only to see if the meat bears the inspector's stamp. The purchaser then knows that the meat has been examined by an impartial and competent authority. When, on the contrary, the meat is condemned, no stamp is affixed, and it must at once be given over to those entrusted by the local authority with the duty of destroying such substances. But if the owner of the meat disputes the verdict of the inspector, he may call in a veterinary surgeon and have a counter-examination. In case of disagreement between the two experts a third expert shall be appointed by the mayor of the locality to decide the matter. The fees and cost of such counter-examination are to be paid by the parties who are ultimately proved to be in the wrong. No cattle are to be slaughtered outside the slaughter-house, except in cases where a horse, mule or donkey has met with an accident that renders its conveyance to the slaughter-house difficult. For horseflesh the inspector shall use a special stamp with the word "horse" distinctly engraved upon it. All meats imported from abroad must come in entire carcases or half carcases, but with the lungs adhering. Such foreign meats must be examined and stamped by a veterinary surgeon before they can be sold. A record must be kept and produced whenever required stating who sends and who is to receive the meat in question; and, when such meat is sent from one district to another, the local authorities may again examine the meat &c. before they allow it to be sold.

A Royal Decree, bearing the date of Feb. 28th, 1891, further elaborates and strengthens the laws mentioned above. The chief purport of this decree is to indicate in a more precise manner what precautions are to be taken to prevent the substitution, the subtraction or addition of some foreign matter to the specimens seized for analysis. The tradesman, by this decree, is allowed to affix his own mark or seal on the sample seized. In the same manner, whenever it is possible, the tradesman may demand that a third sample should be left in his own possession. It is important to note that it is distinctly stated that this shall be done only where possible. There are some things that cannot be divided into three portions, and because such subdivision has not been possible magistrates, in England at least, have refused to convict. Once the sample has been brought to the laboratory the work of the inspector is terminated. The director of the laboratory will proceed to make the analysis, but he will not know whence the sample came. It must only bear a sign, a number by which it can be recognised, and not the name of the person from whom it has been taken. Thus the analyst will escape all accusation of partiality. The articles seized for examination are to be paid for by the local authority if they prove to be unadulterated.

On Feb. 25th, 1891, the Minister of Agriculture sent a circular to the local authorities pointing out that the Government preferred leaving to each locality the organisation of the inspection of meat, unless this duty was neglected, in which case the Government would interfere. The Minister urges that the cost of inspection should be very moderate. In communal or public slaughter-houses the cost, including the inspector's fee, varies from 5*d.* to 1*s.* 3*d.* per 100 kilogrammes of meat. Calculated per head, the following are the maximum and minimum tariffs: For a horse, from 1*s.* to 4*s.*; a bull, 10*d.* to 4*s.* 10*d.*; a bullock, 10*d.* to 3*s.* 6*d.*; a cow, 10*d.* to 2*s.* 6*d.*; a heifer, 10*d.* to 2*s.*; calves, 5*d.* to 10*d.*; pigs or sheep, 5*d.* to 1*s.* 3*d.*; lambs, goats, sucking pigs, 2½*d.* to 5*d.* The local authorities must submit their tariffs to the provincial authorities, and these will be sanctioned by the king for a period of five years.

On the 15th of September, 1891, there was a Ministerial circular issued, giving model forms of certificates which veterinary surgeons are to fill up when they inspect meat; and another circular followed on the 26th September, giving advice as to the best methods of destroying condemned meat. On the 10th of January, 1892, and on the 4th of March further circulars followed. These deal more particularly with the internal administration of slaughter-houses, and opportunities of referring to them will occur when describing the public slaughter-houses of Brussels.

Brussels.

NORTHERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

The Recent Case of Hæmorrhagic Small-pox in Newcastle.

IT is only right that I should, in the first place in this letter, inform you that at a recent meeting of the Sanitary Committee of the Newcastle Corporation, at which reference was made to the circular of Dr. Whamond of Jarrow criticising the action of our city officer of health with respect to his statements about the recent case of small-pox, it was resolved "that after hearing the allegations contained in the circular, and seeing the certificate given by Dr. Armstrong, the committee were unanimously of opinion that the statement of Dr. Whamond was not correct." There is evidently some mistake in this matter.

A New Infirmary for Newcastle.

The infirmary question has become rather complicated. A meeting was held on Monday night last, presided over by the Mayor, to reconsider the decision come to at a public meeting held in June last at the Guildhall, "that a new infirmary be built upon the present site." The meeting was also one for the promotion of the building of a new infirmary wing in memory of the late Dr. Bunce. The feeling of the meeting was best expressed by the motion of Professor Philipson, which was unanimously accepted—namely, "that having recognised that a difference of opinion exists in the public mind with regard to the site of the new infirmary the whole question be referred to a committee

representative of the infirmary and the general public." At the same time it is felt here that the sooner the public mind can come to a decided opinion on the matter the better it will be for the public and for the general interests of the infirmary.

Sunderland.

The Heatherdene Convalescent Home, which has been acquired for the Sunderland Infirmary, was opened at Harrogate last Thursday by the Mayoress of Sunderland, Mrs. Stansfield Richardson. The fund, which consisted of several thousand pounds, was the residue of that evoked by the wave of sympathy set in motion by the dreadful Victoria Hall disaster some nine years ago, when some 187 children were suffocated in descending the stairs on the occasion of a juvenile entertainment in the Victoria Hall. It has thus taken a long time to utilise this money, but at last it has been well spent in acquiring this building and grounds at a cost of about £3000. The home will be principally for children, and will be under the direction and management of the committee of the Sunderland Infirmary, and it will also be supported out of the funds of the infirmary.

Miners' Testimonial to their Medical Officer.

An interesting meeting took place in Eston, near Middlesbrough, last Monday, the occasion being to present Dr. W. Allan Smith, who is leaving the district, with a case of instruments costing over ten guineas. The amount was collected in small sums among the miners and their friends. Several of the miners were on the platform to congratulate the recipient of the testimonial.

Newcastle-on-Tyne, Sept. 21st.

SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

Preparations for Cholera.

A CIRCULAR LETTER has been issued to the medical men practising in the city of Edinburgh to the effect that amongst the precautions to be taken in view of a possible outbreak of cholera in the city it has been resolved by the Public Health Committee that cases of British cholera and choleraic diarrhœa be required to be notified, in addition to those diseases at present notifiable. The medical officer of health for the city, Dr. Littlejohn, has drawn up instructions for nurses who may be called upon to undertake charge of cholera patients. Last week, at the Queen Victoria Jubilee Nursing Institution, a lecture on Cholera was delivered to about sixty nurses by Dr. John Thomson.

Leith and Cholera.

Leith has been inspected and reported on by an official from the Board of Supervision. The report has only in part been made public, but so far as its terms are known it shows Leith to be neither well protected against cholera nor fully alive to the critical position she occupies. She has no compulsory notification of disease and she has no infectious diseases hospital. The authorities have taken one wise step in giving the local medical officer an assistant to help in the inspection of ships arriving at the port, and Dr. Purvis has been appointed to attend to this important measure.

The Annual Report of the Scottish Commissioners in Lunacy.

The thirty-fourth annual report by this Commission for the year 1891 is now in print. On Jan. 1st 1892, there were 12,799 insane persons in Scotland, of whom 10,770 were maintained by the parochial rates, 1972 from private sources and 57 at the expense of the State. As regards the distribution of patients amongst the various institutions, there are no noteworthy points when compared with the preceding year. During the year there was an increase of registered lunatics to the number of 189, 165 of whom were paupers and 24 private patients. The number of persons admitted as voluntary patients has increased, and the Commissioners regard favourably the provision for such cases. The recoveries per cent. of admissions for the year are in Royal and district asylums 35, in private asylums 28, in parochial asylums 42 and in lunatic wards of poorhouses 13. The number of deaths for the year was 152, and the percentage mortality was 9·0 in private patients and 9·6 in paupers. The Commissioners recommend the judicious extension of the provision for allowing patients out on probation. There continues to be a large change amongst asylum attendants, and this, as pointed out in the report, is not favourable to the interests of the patients. There were only 117 accidents reported during the year, and of these only 11 proved fatal. The Commissioners whose duty it is to visit lunatics accommodated in private dwellings continue to report very favourably on the system. Dr. Fraser says, after fourteen years' experience, that his work has led him "to appreciate the happiness which may accompany humble surroundings, to form a high opinion of the intelligence, integrity and kindliness which are to be found amongst the peasantry, and to satisfy myself that, when reasonable care is taken in the selection of patients and of guardians, a large number of the pauper insane who are harmless and incurable can be more suitably provided for in private dwellings than in any other way." The merits claimed for the system are: "(1) home life with its domestic surroundings and interests; (2) individualisation; (3) liberty and contentment; (4) opportunities for remunerative employment or for becoming self-supporting; and these are obtained in conditions favourable to physical well-being and to mental health." The report deals at considerable length with the increased recognition of the importance of hospital accommodation in asylums, and favours the arrangements being made in the new asylums for hospital accommodation for a third of their inmates. The idea in this comparatively new departure is that every patient requiring exceptional treatment, however temporary, should be an inmate of the hospital so long as exceptional treatment is needed. The provision made in the Royal asylums for the reception of the poorer classes of private patients is favourably referred to. As regards the daily cost to a county of its paupers, the Board gives 1*s.* 1½*d.* as the lowest and 1*s.* 9½*d.* as the highest when they are in asylums, it being lower in poorhouses and private dwellings. Since 1858 there has been an increase in the number of lunatics from 5824 to 12,799. The causes of this increase are discussed at some length, and the Commissioners think that a great variety of causes have coöperated to bring this about, one of which is "the widening of medicine and public opinion as to the degree of mental unsoundness which may be certified to be lunacy." The Commissioners further consider that there is no evidence that any considerable contribution to the increasing mass of lunacy has as yet been made from the wealthier strata of society, from which certified private patients are drawn. The report concludes by various suggestions as to the ways in which the burden of pauper lunacy may be diminished in amount or at least checked in growth.

Health of Aberdeen.

The medical officer's report for August shows that the death-rate for that month was 15·84 per 1000 per annum, as against 15·47 in July. The average for August during the past ten years was 15·48. There were 63 cases of measles reported during the month, as compared with 116 in the preceding month. The number of cases of scarlet fever during the month was 86, as against 65 in July; whooping-cough 45, as against 82; diphtheria 11, as against 8; typhoid fever 7, as against 6; and typhus fever 4 (one fatal), as against 6. The daily average number of patients in the City Hospital (Fever) was 94·35.

Refusal of Site for the Deer Fever Hospital.

At a meeting of the Deer District Council of the Aberdeen County Council the chairman announced that the hospital committee had met at Strichen and had agreed as to the construction of the hospital; they had selected an architect and fixed on an excellent site near the Parsonage, Strichen. The proprietor, however, had absolutely refused to allow an infectious hospital in or near the village of Strichen. In these circumstances matters had come to a standstill. Another attempt would be made to obtain the site, and if it were unsuccessful a position might be obtained on an adjacent estate.

Glasgow University Chair of Surgery.

The appointment of Dr. William Macewen of the Royal Infirmary to this chair, in succession to the late Sir George H. B. Macleod, has given unmixed satisfaction in Glasgow, in lay as well as in professional circles. It is seldom that a State dispenser of patronage has so easy a task as Sir George Trevelyan had in this case, for from the first Dr. Macewen's claims to the post were unquestioned. The University is to be congratulated on having found a teacher who will shed lustre on his *alma mater* and maintain worthily the best traditions of the chair of Surgery.

Medical Education of Women.

The managers of the Glasgow Royal Infirmary have, as was expected, rescinded their former resolution to exclude women

as students from the wards of the Infirmary, and have decided to afford to female students facilities for clinical and pathological instruction separately from male students. It remains to be seen how this will be received by the fifty-three male students who recently sent in an ultimatum demanding the exclusion of ladies, under threat of withdrawal to some other school. The governors of St. Mungo's College and the directors of the Infirmary are in an awkward predicament. It is really a pity that they departed from their first resolution to exclude ladies. It is quite clear and universally admitted that it is neither practicable nor desirable to carry on the clinical teaching of both sexes in mixed classes; it is also absurd to suppose that the clinical education of women can be satisfactorily carried on in sets of wards set apart for them. To have a thorough, all-round education women must have the same privileges as men—that is, they must have the free run of an entire hospital in all its departments. All the cases suitable and valuable for purposes of instruction cannot be seen in one or two "sets" of wards. The difficulty experienced by Queen Margaret's College students in keeping up their clinical study in an institution so far removed from the scene of their systematic and theoretical work will continue as great as heretofore. The only sensible and permanent solution of the trouble is the adoption of some such scheme as that suggested a few weeks ago in these columns—namely, the amalgamation of the Medical Faculty of Queen Margaret's College with the Muirhead Trust, and the appropriation of their combined funds to the building and endowment of a school near the Victoria Infirmary, to which the entire medical faculty of Queen Margaret's College might be transferred, a proper arrangement having first of all been come to with the governors of the Victoria Infirmary, securing that hospital for the clinical instruction of women exclusively.

Notification of Diarrhœal Diseases.

The Glasgow local authority has issued an order to the effect that British cholera and choleraic diarrhœa are to be regarded as diseases which must be notified on the usual infectious diseases forms, this order to remain in force till the end of November next. This is doubtless in view of the possible appearance of cholera amongst us. Meantime the city remains clear of the disease, the two patients (Russian Jews) who suffered from it a week or two ago having been dismissed well from the fever hospital. The passengers who were associated with these patients were isolated, and all of them escaped the disease.

Sept. 20th.

IRELAND.

(FROM OUR OWN CORRESPONDENT.)

Suspected Case of Cholera at Queenstown.

ON arrival of the Eppleton steamer at Queenstown on Sunday last considerable excitement was created when it was stated that a case of choleraic diarrhœa was on board. The vessel was placed in quarantine, and Dr. Hodges, medical officer for the port of Cork, visited the steamer and found the patient was suffering from choleraic symptoms not of a dangerous character. The case was isolated and removed on the following day to the Queenstown Intercepting Hospital.

Outbreak of Fever in Kilkenny.

The county gaol has been closed by sealed order of the Local Government Board in consequence of the epidemic of fever alleged to prevail in the prison. Surg.-Lieut.-Col. Magee has recommended the closing of the James-street police station, inasmuch as several constables have contracted fever and have been removed to the fever hospital—a suggestion which has been adopted by the Urban Sanitary Board.

Kerry Lunatic Asylum.

The monthly meeting of the board of governors was held last week, presided over by the Earl of Kenmare. The governors had under consideration the appointment of an assistant resident surgeon, as recommended by the Privy Council, at a salary of £100 a year, with rations &c. amounting to about £80. After some discussion the following was adopted: "That the medical superintendent apply, on behalf of the Board, to the Privy Council as to whether, by the new rules 46 and 47, the appointment of a second medical officer is mandatory on the Board before a vacancy occurs in the office of visiting physician."

Suggestions for the Early Treatment of Cholera.

The Royal College of Surgeons in Ireland have furnished, amongst others, the following suggestions for the use of the public as to the treatment of early or suspicious symptoms when cholera is threatened or epidemic: The College advise no alteration in the habits of living where these have previously been moderate and regular. All excess should be carefully avoided, especially in the use of alcoholic drinks, as it is well known that the intemperate most certainly fall victims to the most fatal type of cholera as of other epidemic diseases. All debilitating causes should be carefully avoided, such as excessive and long-continued fatigue and fasting, overcrowding, exposure to moist, stagnant air, or to air loaded with organic effluvia. During the prevalence of cholera any person affected by any of the following complaints should at once obtain medical advice: (1) Diarrhœa or looseness of the bowels; (2) vomiting or sickness of stomach; (3) pains in the stomach or bowels; (4) pains or cramps in the legs. While such aid is being obtained the patient should be put to bed immediately and warmth should be encouraged by the application of heat to the body and limbs. Also, in case of sickness of stomach, a large mustard poultice should be applied over the abdomen. In the event of cramps ensuing diligent rubbing of the limbs should be resorted to.

Sept. 21st.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

A New Treatment of Oophoro-salpingitis.

EVERY practitioner is aware of the unsatisfactory means at our disposal (short of abdominal section) for the treatment of the above condition. At the best, in most cases, the patient is relieved of the acute symptoms, leaving the disease in a chronic stage for a weary length of time. Dr. Auvard of Paris announces the successful treatment of two cases by means of intermittent pressure, which he applies in the following manner: A Gariel's air pessary is introduced into the vagina and a bag filled with shot is simultaneously maintained over the site of the abdominal induration. The weight of the shot is gradually increased from 750 to 1500 grammes and the bag is kept applied for from two to three hours every morning and evening. During the interval (the pessary being also removed) hot vaginal injections and a cold enema are administered. In one case quoted, where a very tender swelling the size of a hen's egg could be felt in the right broad ligament, the tumefaction had completely disappeared after ten days of this treatment, and in three weeks the woman was well. In another case of oophoro-salpingitis induced by intra-uterine exploration, internal and external intermittent pressure, by means of a Gariel pessary and a shot-bag weighing one kilogramme, practised once daily for an hour and a half, relieved all the suffering and greatly reduced the swelling.

Toxicity of the Serum in Cases of Eclampsia.

Puerperal convulsions are now generally regarded as the outcome of auto-intoxication. Bouchard has demonstrated the lessened toxicity of the urine passed, often only in diminished quantity, by such patients. It occurred to Dr. Chambrelent of Paris to supplement these observations of Bouchard by examining the serum of the blood drawn during the attacks. Taking as a basis the fact already established by Rummo that 10 cubic centimetres of healthy human serum is the quantity necessary to kill one kilogramme of rabbit—i.e., 10 cc. to each kilogramme of body-weight—he found that this degree of toxicity was greatly exceeded when eclamptic serum was employed, and that there was a constant relation between the poisonous properties of the serum and the gravity of the case. Six patients were the subjects of the above experiments at the Obstetric Clinic of the Paris Faculty.

Paris, Sept. 21st.

NEW YORK.

(FROM OUR OWN CORRESPONDENT.)

First Appearance of Cholera.

THE steamship *Moravia* left Hamburg on Aug. 18th (the day on which cholera was discovered in that city) with 358 emigrant passengers. Cholera appeared on the first day out and con-

tinued to prevail until the ship arrived at this port on the 31st of the same month. The total number of deaths was twenty-two. The vessel is in quarantine, the sick being transferred to one of the islands and the healthy to another. Four days later the *Normannia* and *Rugia* arrived each having cases of cholera on board, and they were detained in quarantine. New cases are occurring daily at quarantine and all of the vessels are now detained. The result is that the station will soon be overcrowded if the policy of detention be pursued. From Sept. 1st to the 12th no less than 15,000 immigrants were expected to land in the harbour of New York.

Proclamation of Quarantine by the President.

One of the most extraordinary events in the history of quarantine in this country is the proclamation of a twenty days' quarantine of all vessels from foreign ports carrying immigrants, approved by, and issued under the sanction of, the President. This circular, so called, is the more remarkable because the quarantines at the immigrant ports are all under the exclusive control of the States in which they are situated. Again, an absolute rule of twenty days' detention of *all* vessels from foreign ports carrying immigrants is an anomaly in our quarantine system, and is, in fact, a return to the practice of the middle ages. It ignores all that we have learned of sanitary disinfection and cleansing, and makes time the chief element in eliminating an infectious disease from ships, persons and baggage. Under this proclamation our quarantines, instead of being aids to facilitate travel and commerce, will become what they formerly were—most annoying and unnecessary obstructions. Indeed, this circular, approved by the President and carrying the weight of his high authority, is very properly introduced as "quarantine restrictions upon immigrations to aid in the prevention of the introduction of cholera into the United States." If carried into effect it will certainly result in stopping immigration, or of over-populating our quarantine stations with healthy persons.

Quarantine at the Port of New York.

Fortunately the port of New York, the great entrepôt of immigrants, has a thoroughly organised and equipped quarantine station which is exclusively under the jurisdiction of the State. The laws of this State relating to quarantine have been perfected by experienced medical health officers until they illustrate the most advanced views of sanitary officers. The quarantine station is located on two artificial islands in the harbour, one of which is devoted to the sick and the other to the healthy. Disinfection of baggage and vessels is by superheated steam. Every needed provision is made for the care of the sick, for observation of the healthy and for the disinfection of baggage and vessels. The health officer is clothed with ample powers and at his discretion the entire establishment is managed. He may detain vessels, persons and things one day or one year. As a result of this wise arrangement our quarantine has been regarded by the travelling public, by steamship companies and by commercial men as an aid rather than an obstruction. It has also proved most efficacious in preventing the introduction of foreign pestilences into this country.

General Preparations for Cholera.

The country was never so well prepared for an epidemic of cholera. Health organisations now exist in every State and municipality and the authorities are unusually well equipped for the work in hand. On every side we hear the note of preparation. Sanitary cleansing extends to every city, town and family. The general public is in a high state of alarm owing to the enormous amount of newspaper reporting, but this alarm leads to precautionary measures and tends to make the people receptive of the advice of health authorities.

New York, Sept. 6th.

EGYPT.

(FROM OUR OWN CORRESPONDENT.)

Fungous Foot of India.

SEVEN cases of this tumour, now believed to be actinomycosis, have been seen at Kasr-el-Aini Hospital and were recognised by Mr. Milton from published descriptions of the Madura foot. The first case was that of a young girl seen in 1888, but the remaining six have all been young men, either Egyptians or negroes. The disease has not yet been met with in any other part of the human body or in animals. No light can yet be thrown upon the cause of the disease and only one case has yet shown the black variety of mycetoma. To the naked eye and under the microscope the Egyptian cases exactly resemble the disease as seen in India.

Resection of Intestine.

This operation has lately been done here for the first time by Mr. Milton. An Italian woman was operated upon some months ago in a European hospital for strangulated hernia. The gut was gangrenous and an artificial anus was made in the groin and the patient discharged cured. However, she lost weight, and it was easily proved by watching the new anus that it existed too high up in the small intestine to allow complete digestion of eggs and other simple food. After some successful experiments upon dogs the patient's abdomen was opened and the severed intestine clamped, pared freely and sewn together upon a gelatine tube some two inches long.

Alexandria Native Hospital.

Beyond tents in the desert no accommodation has ever existed in Egypt for infectious diseases, but now a hut for six patients has been constructed in the grounds of the Alexandria Hospital to accommodate such diseases as small-pox, relapsing fever and leprosy. A disinfecting machine, specially modified by Professor Koch, has also been purchased by the municipality. As a proof of the good work done by the hospital staff the number of European patients is constantly increasing, in spite of the presence of several European hospitals, and the 170 beds are always full, even in winter, when the public health is more satisfactory. Natives come from the surrounding towns and villages for treatment. The garden is now very well laid out, and the produce, consisting of peaches, apples, strawberries, mulberries, grapes and figs, is jealously kept for the patients.

Hotel Accommodation in Cairo.

For the last ten years every winter has seen either some new hotel opened or some existing ones enlarged, and yet for two months at the height of the season Cairo has always seemed over-full. But though there is no lack in the number of visitors, it would appear that enough accommodation has now been provided. Shepheard's Hotel has been completely rebuilt at a cost of £65,000, of which £4000 was expended on sanitary fittings alone. This dry climate permits building to be carried on very rapidly and without any apparent drawback. On April 27th, 1891, they commenced to demolish the old caravanserai so well known to travellers, and the new building was completed between June 7th and Oct. 1st, so that guests were received during October. This celerity was partly aided by electric light and partly by a clause in the contract which fined the builders £70 every day after Sept. 30th. The sanitary arrangements were carried out by an English firm, who employed fifteen English plumbers to fix forty-two w.c.'s, twenty fixed baths, ten slop sinks, two hot-water circulating systems, five urinals and lavatories, and, until the drainage scheme for the town is completed, five cemented cesspools, away from the house, which are emptied by pneumatic tubes. Lifts have been introduced for the first time for passengers, luggage and servants, electric lighting throughout, special larders for fish, vegetables and poultry; twelve water tanks on the roof in case of fire, and a dozen of Pasteur's filters for all drinking water. Seven European cooks and ten chambermaids are among the 192 servants provided for some 350 or 400 guests. The proprietors have spared no pains to render the new building healthy, and fully deserve the honour of being the first hotel possessed of a sanitary certificate in this country. To prevent all ground damp, some five feet of hydraulic concrete has been used for foundations, besides an asphalte damp course, and the whole of the garden soil to three feet deep has been changed for clean mould from the bed of the river. The Continental Hotel is having all its sanitary arrangements perfected, and, in addition to a lift and dancing hall, has provided three hansom cabs for the comfort of the guests. The same management is now rebuilding on a new site the Hôtel d'Angleterre, with every comfort for those English visitors who wish to avoid the noise and expense of larger buildings.

Helouan Hotel.

The sulphur springs in the desert near Cairo were lately opened up to the public by a new railway line, the owners of which have now started a large and luxurious hotel of two storeys with some 85 rooms for 100 guests. In order to rival existing hotels in Cairo and at the Pyramids, there are electric lighting, English beds and sanitary fittings, lawn tennis, croquet &c. In a detached casino there are reading and billiard rooms, and occasionally balls and concerts are given.

Cairo, Sept. 1892.

NEW ZEALAND.

(FROM OUR OWN CORRESPONDENT.)

Counter-prescribing.

AT the last annual meeting of the New Zealand Medical Association the following motion, among many others, was brought forward: "That in the opinion of the New Zealand Medical Association it is undesirable for the members practising in the four large centres in the colony to dispense and send out medicine from their houses, except in cases of emergency. Further, that in the opinion of the Association such a practice is not necessary in the interests of patients, and that its tendency is to lower rather than to raise the status of the profession in the colony." Counter-prescribing is very plentiful in New Zealand. As a matter of fact, medical men here are, in some of the leading centres, compelled to prescribe and dispense their own medicines for their own protection. Now what has brought this state of things about, and how is it to be remedied? Let us look at it from the chemist's point of view. He says he is almost compelled to prescribe over the counter, because as a business man he is called upon to cater for the wants of the public, and because certain sections of the public will not call in a medical man until the patient appears to be *in extremis*. Again, he has an active antagonist in the shape of the herbalist, who is ready and willing to prescribe and dispense for any and every complaint, and there is no law to prevent the quack, who has received no training and passed no examinations, from doing so. Under these circumstances the chemist states that if he refused to prescribe and referred his customer to a physician, he would in all probability find his customer emerging from the herbalist's with a supply of medicine. It can be laid down as a maxim that the more ignorant the quack the more he endeavours to gull his customers. It is a fact that some five years ago there was exposed for sale in a herbalist's window in a leading thoroughfare in a principal town in New Zealand a bottle labelled "Medesin for Sekret diseas." Within the last few months another herbalist dubbed himself M.B., and explained that it represented "Medical Botanist." The herbalist is ignored. Further, it is stated that medical men by prescribing and dispensing their own medicines compel chemists to prescribe, since if they did not do so they would only have the sale of the patent and proprietary medicines as a means of livelihood to fall back upon. The only means of remedying the present very unsatisfactory state of things is to pass an Act introducing the German mode of conducting medicine and pharmacy; but such an Act is not likely to be brought forward in this colony at the present time. I feel that dispensing is degrading to the profession, for in the majority of instances the patient is under the impression that it is the medicine he is buying from you and not your advice and consideration of his case. In a district where medical men reside who do not dispense their own prescriptions there is no possible excuse for a chemist to act as a consultant. I should like to see the New Zealand Legislature take the initiative and adopt some such general principles as those which seem to work so well in Germany.

Leprosy among the Maories.

A very interesting article from the pen of Dr. Martin of Wellington appears in the July number of the *New Zealand Medical Journal*. It describes two undoubted cases of leprosy, and does much to decide the many contradictory opinions which exist as to the prevalence of the disease among the Maories. Two cases are described: those of a full-blooded male Maori, aged about forty, and his nephew, aged about fifteen. The elder patient was, according to the natives, supposed to have been bewitched by a Maori who had acquired this evil power from a "tohunga" who was proficient in the art and who lived on the borders of the Hauraki gulf. The cause of his exercising this power was due to a quarrel, and they state that the malady soon developed—in fact, would have one believe almost immediately. The onset was numbness of the extremities, ending in complete anæsthesia with coincidence of lumps through the skin. Dr. Martin describes in detail the present condition of these two lepers, which goes to show that this disease exists among the Maories in the immediate vicinity of the hot lakes. The family history of these cases shows that neither in the parents nor in their ancestors had the disease appeared. Case 1 had lost two brothers from natural causes; one brother and a sister (mother of Case 2) died lepers, while one sister is alive and well at Wanganui. The Maories call the disease "ngeri-ngeri"; they state that the illness has been handed down by tradition and are rooted to the conviction that it is caused by witchcraft. The malady in the case of the boy arose, according to the natives, from his partaking of some food from a lying-in woman during the time prohibited by Maori law. Another fertile source of the complaint is the act of urination over graves, which is looked upon as a terrible breach of Maori observance. Dr. Martin ends his very able article by the remark "that leprosy in the true form exists there can be no doubt, but it is to a very limited extent and very little would be required to stamp out the disease now; but what with drink and debauchery matters may assume greater proportions and call forth greater exertions for its extirpation."

Obituary.

ALFRED LEACH, M.B. ABERD., M.R.C.P. EDIN.

THE death of Dr. Alfred Leach may be looked upon as another instance of a member of our profession sacrificing his life in the performance of duty. The immediate cause of his death was a severe attack of English cholera, which commenced on Sept. 11th and ended fatally early on the morning of Sept. 14th. The exciting cause is believed to have been due to the inhalation of sewer air while investigating the cause of an outbreak of diphtheria in the house of one of his patients. It was two days after this that he first began to complain of diarrhœa and sickness. Thinking too lightly of these symptoms he would not have any professional aid till cramps began to appear thirty hours after the onset of the disease. The cramps were soon followed by symptoms of collapse, a feeble, intermittent, thready pulse, cold hands, cold perspiration, and sunken features. The diarrhœa and sickness were checked, stimulants and nourishment were taken and were retained in considerable quantities. Yet the state of semi-collapse never yielded, and despite the constant attention of his medical friends, Dr. Dewar and Dr. Ewart, and the assistance of Mr. Pearse and Mr. O'Donnell, the case terminated fatally twelve hours after the cessation of the sickness. The poison, acting on a constitution never robust, caused several attacks of dyspnœa, accompanied by loss of vision and excitement. The inhalation of oxygen greatly relieved these symptoms. One fact worthy of notice is that, in spite of the weak, thready pulse, which often could not be counted (though after the inhalation of the oxygen it was steadied and strengthened), death commenced at the lungs, for the heart was beating when respiration had ceased. In disposition Dr. Leach was gentle and considerate, and in all his dealings most honourable. He had no professional jealousy or meanness, but always showed scrupulous regard for the rights and the feelings of his *confrères*. In consequence he was a great favourite with his professional brethren and with his patients. He will be missed by many friends, rich as well as poor. Although Dr. Leach did not contribute much to medical literature he was possessed of fine literary qualities, and during his student days in Aberdeen he published a little book on the "Letter H" and one of poems called "The Quadrangle by Moonlight." In those days the Muse was more to him than Medicine. He was a good linguist, speaking Arabic, Italian and French. He has held for several years the post of physician to the Italian Hospital, and was only thirty-five years of age at the time of his death.

PAOLO FIORDISPINI.

FEW of the many English-speaking physicians who have visited Rome but must have made a pilgrimage to the great lunatic asylum in the Trastevere and formed the acquaintance of its highly accomplished and efficient superintendent, Dr. Paolo Fiordispini. In that institution and under his guidance they must have noted, as they passed from ward to ward, the admirable surveillance exercised over the patients, the almost total absence of all mechanical restraint and the general air of tidiness, cheerfulness and order that prevailed. If, after having made the round of the vast asylum, they accompanied their courteous host to the neighbouring heights

of the Janiculum, where villas are established amid charmingly rural surroundings for the convalescents, they must have found in the new series of arrangements for the treatment and comfort of the inmates enhanced evidence of the forethought, the knowledge and the skill which presided over every detail of the management; and on taking leave of their painstaking and experienced guide they seldom failed to receive from him, along with his hearty "*a rivederla*," a copy of his latest report, in which they might read an excellent digest of the *movimento* of the institution within its last statistical period, and derive the pleasure that a lucid and at the same time rigidly scientific narrative of disease in its incidence, its progress, its treatment and its issue invariably confers. To all such and to a large circle of the profession, particularly in its medico-psychological department, the news of Dr. Fiordispini's death will bring sincere regret. A Roman by birth and education, he was born in 1834 and early attracted the notice of his teachers by his quiet energy, his unobtrusive intelligence, his high standard of worth, intellectual and moral, and his great suavity of address. The study of the obscurer diseases of mind and brain had always a special fascination for him, and he was signally aided in its prosecution by one of his predecessors in office, Pope Pius IX.'s body physician, who recalled the best traditions of Valsalva and Lancisi, Dr. Viale-Prelà. Comparatively early in life he won the object of his ambition—the superintendence of the great lunatic asylum in whose service he lived and died. The Manicomio in the Trastevere, situated in the Via della Lungara, at that picturesque bend of the Tiber where it shortly leaves the city to wind wearily through the melancholy and mysterious Campagna to the sea, owed much to Pius IX., under whose enlightened patronage it was one of the first asylums in Europe to dispense with the shackles, the strait waistcoat, the "bath of surprise" and the other antiquated instruments for the coercion of unruly patients. The Holy Father found in young Fiordispini an able and sympathetic interpreter of his wishes; one who by travel or correspondence had made himself acquainted with the best doctrine and practice to be found in Europe for the care and cure of the insane. Together, Pontiff and physician, they conferred and deliberated for years to improve the institution, and the successive additions to its resources and improvements in its working were embodied in those "Rendiconti Statistico-Clinici" which came to be anticipated with eagerness and read with pleasure and profit by the medico-psychologists of Europe. When in 1878 Pius IX. died, his successor Leo XIII. maintained the same friendly and even affectionate relations with Dr. Fiordispini, and again reforms and ameliorations in the institution were being steadily introduced when the health of their devoted adopter or promoter began to give way. Still he struggled on against advancing debility of bodily and even mental power till he had to retire to Castel Gandolfo, the summer residence of the Popes on the Alban hills, for rest and mountain air. Improvement was at first manifest, but the thirty years' continuous strain in superintending the vast Manicomio was not to be overcome. On the 29th ult. Dr. Paolo Fiordispini, at the comparatively early age of fifty-eight died surrounded by his family and sustained by the presence of friends, medical and ecclesiastical, professional and lay. His remains, in a coffin covered with wreaths from sympathisers far and near, were borne by the villagers of Castel Gandolfo to the neighbouring church of S. Thomas of Villanuova, which overhangs the beautiful Alban lake. A more elaborate funeral service has yet to be celebrated, at which many of the public, including colleagues in professional and civic office, members of learned bodies and "cavalieri," like himself, of the "Crown of Italy" and of other orders have signified their wish to attend.

THOMAS AITKEN, M.D. EDIN.

GREAT grief was occasioned in Inverness on Monday, the 12th inst., by the news of the death of Dr. Aitken, Physician and Superintendent of the District Lunatic Asylum, at the age of sixty. Dr. Aitken had not been for some time in robust health, but he was travelling on the Continent when he caught a chill and died suddenly of bronchitis. His high character and his long connexion with the northern asylums, extending over thirty years, gave this news a distressing effect. Dr. Aitken graduated at the University of Edinburgh in 1858, having written a thesis on General Paralysis of the Insane. He was not only a high authority on mental disease, but a man of high general and literary culture. He was a member of the Landward School Board, Inverness. He was a botanist of some eminence, and had made a fine collection of the flora of the district, and contributed papers on the same to the Transactions of the Inverness Scientific Society. He was a genial and much-esteemed friend. In 1861 he married Miss Torrie, daughter of Dean Torrie of the Diocese of St. Andrew, and granddaughter of the late Bishop Torrie, Dr. Aitken was a native of Dumfries.

Medical News.

PRECAUTIONS AGAINST CHOLERA.—It is stated that the Corporation of London have decided to make some very substantial and necessary additions to their hospital at Gravesend.

DRAINAGE AND WATER SCHEME FOR HENLEY-IN-ARDEN.—The Stratford-on Avon Sanitary Authority have directed their clerk to authorise Mr. J. E. Wilcox, C.E., of Birmingham, to prepare a general drainage scheme for Henley-in-Arden.

DEARTH OF HOSPITAL NURSES IN PARIS.—M. Laurent of the Municipal Council of Paris, is reported to have said that nurses and ward attendants are so badly paid that they can only be recruited from "saintly heroines and the scum of the population who cannot get other employment."

YORKSHIRE COLLEGE.—A residential hall for the convenience of students attending the above college is now on the point of completion. Its appointments appear to be very elaborate, and the structure will be known as Lyddon Hall.

SURGEON-MAJOR LEES-HALL, who worked so hard in the cause of ambulance in Colombo some three years ago, is now following up his work in Halifax, N.S. The police force have already two classes amongst them, and four other classes are being formed amongst the militia and firemen.

DEATH OF DEPUTY SURGEON-GENERAL G. W. POWELL.—An inquiry concerning the death of Deputy Surgeon-General G. W. Powell was held on the 19th inst. by Dr. Danford Thomas. The deceased gentleman died from a fall consequent on a false step made whilst looking in a shop window; but the necropsy showed disease of several organs of the body, and that death was due to syncope.

NEW INFIRMARY, SOUTHPORT.—It has been decided to invite the Mayor of the borough (Alderman G. A. Pilkington, M.R.C.S., who twenty-one years ago was the first house surgeon to the present infirmary) to lay the foundation stone of the new infirmary on Oct. 29th. The new building will cost upwards of £13,000, exclusive of the site, comprising five acres, which has been presented.

FOOTBALL CASUALTIES.—During a match on Saturday between the captains' teams of the Nuneaton Town Football Club a player sustained a fractured leg. On the same day a member of the Harrogate Football Club, aged twenty-three, in a match between the Harrogate and Stanningley teams, collided with another player and received injuries, from which he died on the following day; and on the same day, in a match at Pateley Bridge between the Local and the Harrogate St. John's Clubs, a player aged twenty-four fractured his clavicle and was removed to the Leeds Infirmary.

CORONERS AND THEIR JURISDICTION.—At the close of an inquest at Warrington on the 16th inst. on the body of a man who died from a fall at Knutsford-road, Mr. Brighouse, the county coroner, explained that he was there simply to prevent a scandal, and not because he thought he had any legal right to be amongst them, although he had no objection to meet a Cheshire jury. The Local Government Act was passed in 1888, and that was the Act of Parliament on which Mr. Yates, the Cheshire coroner, relied in support of his contention that he (Mr. Brighouse) ought to hold that inquest and not himself. Mr. H. C. Yates has explained that it was only recently he had been instructed by the clerk to the Cheshire County Council that Latchford had been transferred to Lancashire. He naturally concluded that the Lancashire County Council had communicated at the same time with Mr. Brighouse, their coroner, and he was therefore astonished that the report of the accident in Latchford should have been sent to him.

SCARLET FEVER IN LEEDS AND OVERCROWDING.—Great efforts are being made by the Corporation to extend the hospital accommodation in this borough. The Beckett-street Hospital has already 100 beds occupied.

THE NEW FEVER HOSPITAL AT TOTTENHAM.—Great exertions are being made to complete the erection of this hospital as rapidly as possible. On Monday 800 men were at work. The "huts" are 100ft. long by 25ft. wide and are made of boards lined in between with felt. The estimated cost is £40,000.

THE TREATMENT OF "CASUALS."—An order having been issued by the Local Government Board authorising boards of guardians to admit applicants to the casual wards to be discharged early next morning without performing any work, the Lambeth Board of Guardians have adopted a resolution the result of which is that the applicants will be discharged at 5 30 A.M. and food given to them before departure.

NEW SEWERAGE WORKS AT WEYBRIDGE.—The inhabitants of Byfleet have held a meeting protesting against the new sewerage works for the parishes of Weybridge, Oatlands and Hersham. It was unanimously resolved to resist the scheme by every available means, on the ground that the proposed site in Oyster-lane would seriously affect all classes in the village for people would not care to live in the neighbourhood of a sewerage farm, while it was held that the flooding of the Wey would force the sewage backwards into the village and probably cause an epidemic.

THE DANGERS OF IMPORTED CARPETS.—At a meeting of the Kidderminster Town Council the chairman declared that the carpets imported from the East, and purchased for the adornment of fashionable homes, often contained the germs of infectious disease. The Government had prohibited the importation of rags from the East as calculated to spread cholera, and Eastern carpets ought to be similarly tabooed. It was well known in the trade that when bales of such carpets were opened, clouds of ill-smelling dust were emitted, and the men engaged in unpacking suffered from violent purging and vomiting.

SOCIETY FOR PROMOTING UNIVERSITY REFORM.—On Wednesday, the 28th inst., a public meeting will be held at the Memorial Hall, Farringdon-street, when resolutions to the following effect will be submitted:—1. That in the interests of middle-class education the Greek language be removed from the list of compulsory subjects for degrees at our national universities. 2. That the eighteen months' university teaching required for the B.A. degree be spread over *two* years instead of *three* as at present. 3. That reform is urgently needed in the governing body of our national universities, as the present predominating power of the Theological Faculty tends to obstruct proposals brought forward in the interests of other branches of study essential to modern times.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

ANCRUM, G. WAYLAND, M.B., C.M., L.R.C.S., L.R.C.P. Edin. & Glasg., has been appointed Assistant House Surgeon to the General Infirmary and Eye Institution, Gloucester.

BERRY, JAMES, B.S. Lond., F.R.C.S., has been appointed Surgical Registrar to St. Bartholomew's Hospital, vice C. B. Lockwood.

BLUETT, JOHN, M.R.C.S., has been reappointed Medical Officer of Health for the Borough of Chesterfield.

DIXON, W., M.B., C.M. Edin., has been appointed Medical Officer for the Second Hougham Sanitary District of the Dover Union.

EATON, JAMES, M.R.C.S., L.M., has been appointed Medical Officer for the Spittlegate Sanitary District and the Workhouse of the Grantham Union.

EDGE, FREDERICK, M.D., B.S., B.Sc. Lond., F.R.C.S Eng., has been appointed Honorary Acting Gynæcological Surgeon to the Wolverhampton and District Hospital for Women.

HEWITSON, C. C., M.R.C.S., has been appointed Medical Officer for the St. John's Sanitary District of the Weardale Union.

HOLMAN, H. C., M.R.C.S., has been reappointed Medical Officer for the No. 2 Sanitary District of the Hailsham Union.

HOSKINS, E., M.R.C.S., has been reappointed Medical Officer for the Little Eaton Sanitary District of the Shardlow Union.

IRWIN, STEWART, M.B., B.Ch. Irel., has been appointed Medical Officer for the Almondsbury Sanitary District of the Thornbury Union.

LOWNDS, H. A., L.R.C.P., L.R.C.S. Edin., has been appointed Medical Officer for the Workhouse of the Doncaster Union.

MOON, D. S., L.R.C.P., L.R.C.S. Edin., has been appointed Honorary Consulting Surgeon to the Royal Infirmary, Dundee.

NICKLIN, M., M.B., L.R.C.P. Lond., M.R.C.S., has been appointed Honorary Assistant Surgeon to the Wolverhampton and District Hospital for Women.

SMITH, PATRICK A., M.B., C.M., F.F.P.S. Glasg., has been appointed Visiting Physician to St. Peter's Seminary, Bearsden.

STONHAM, H. A., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer for the Out-door Poor of the Stepney Union.

WILSON, ARTHUR MARIUS, M.B., B.S., L.R.C.P., M.R.C.S., has been appointed Assistant Medical Officer of Health (temporary) to the Port of Colchester, to inspect all incoming vessels.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria-park, E.—Pathologist. Salary 100 guineas per annum. (Applications to the Secretary, 24, Finsbury-circus, E.C.)

CLAYTON HOSPITAL AND WAKEFIELD DISPENSARY, Wakefield.—Junior House Surgeon. Honorarium £40 per annum, with board, lodging, and washing.

HOLBORN UNION.—Resident Medical Officer of the Workhouse, Shepherdess-walk, City-road, N. Salary £200 per annum (to include midwifery fees if called upon to act), with furnished residence, gas, coals and washing. £60 per annum required towards the cost of his rations. (Apply to the Clerk to the Guardians; Offices, Clerkenwell road, E.C.)

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton.—House Physicians.

HOSPITAL FOR WOMEN (THE LONDON SCHOOL OF GYNÆCOLOGY), Soho-square, W.—Clinical Assistants.

KENT AND CANTERBURY HOSPITAL.—Assistant House Surgeon. Salary £50 a year, with board and lodging.

LANCASHIRE COUNTY ASYLUM, Rainhill, near Liverpool.—Pathologist. Salary £200 per annum, with furnished apartments, board, attendance, and washing.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, City-road, London, E.C.—House Physician for six months. Salary at the rate of £40 per annum, with board and lodging.

ST. PETER'S HOSPITAL FOR STONE AND URINARY DISEASES, &c., Henrietta-street, Covent-garden.—House Surgeon for six months. Honorarium 25 guineas; board, lodging, and washing.

Births, Marriages and Deaths.

BIRTHS.

DREW.—On Sept. 16th, at Broad-street, Oxford, the wife of Arthur J. Drew, F.R.C.S., of a son.

GARLICK.—On Sept. 15th, at 3, Gordon-square, the wife of George Garlick, M.D., of a son.

MARTIN.—On June 24th, at Ootacamund, India, the wife of Brigade-Surgeon-Lieut.-Col. P. R. Martin, of a daughter.

WARD-HUMPHREYS.—On Sept. 13th, at Oriel Lodge, Cheltenham, the wife of G. H. Ward-Humphreys, L.R.C.P. Lond., M.R.C.S., of a daughter.

MARRIAGES.

BICKERSTAFF—GREENWOOD.—On Sept. 15th, at St. Clement Dane's, Strand, George Roger Bickerstaff, L.R.C.P. Lond., M.R.C.S., of Waltham Abbey, Essex, younger son of the late Rev. J. Bickerstaff, Rector of Bonsall, Derbyshire, to Grace Catherine Greenwood, elder daughter of the late Rev. H. B. Greenwood, Rector of Sutton-upon-Derwent, Yorkshire.

BOON—MATTHEWS.—On Sept. 14th, at St. George's, Bloomsbury, by the Rev. H. R. Haweis, M.A., Incumbent of St. James's, Marylebone, Ernest Gerald Boon, L.R.C.P. Lond., M.R.C.S. Eng., of St. Kitt's, West Indies, to Frances Amy, daughter of the late I. N. Matthews, of Buffalo, New York, United States.

KEYS-WELLS—LOWNDS.—On Sept. 21st, at Little Comberton, Worcestershire, by the father of the bride, assisted by the Rev. E. J. Rhoades, M.A., Rector of Elmley Castle, Ernest Nevile Keys-Wells, M.B., fourth son of the Rev. William Keys-Wells, M.A., of Sarony-square, Scarborough, to Grace Eleanor, younger daughter of the Rev. Edward Spencer Lowndes, Rector of the parish.

MACEVOY—HART.—On Sept. 17th, at St. Philip's, Battersea, Henry John Macevoy, M.D., B.Sc. Lond., M.R.C.S., L.R.C.P., of 41, Buckley-road, Brondesbury, N.W., to Mabel, youngest daughter of the late George Hart, of Wakefield, Yorks.

DEATHS.

COTTER.—Recently, at Cheadle-Hulme, Cheshire, the Rev. J. L. Cotter, M.D. Dub., M.R.C.S.

HUGHES.—On Sept. 15th, at Bedford House, Deal, David Hughes, M.R.C.S., aged 51.

LEACH.—On Sept. 14th, at 21, Belgrave-road, S.W., after three days' illness, Alfred Leach, M.B., M.R.C.P., aged 35 years.

NICHOLSON.—On Sept. 14th, at Surrenden, Queen's-park, South Norwood, Brinsley Nicholson, M.D., aged 69.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages and Deaths

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, Sept. 22nd, 1892.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radiation in Vacuo.	Maximum Temp. Shade.	Min. Temp.	Rainfall.	Remarks at 8.30 A.M.
Sept. 16	29·76	S.W.	63	60	116	72	55	..	Cloudy
" 17	30·19	N.W.	54	51	104	62	51	·05	Cloudy
" 18	30·30	W.	49	46	107	67	44	..	Fine
" 19	29·99	N.W.	60	56	102	73	47	..	Fine
" 20	29·96	N.E.	60	57	100	70	57	·07	Raining
" 21	29·95	E.	62	61	105	68	59	·04	Raining
" 22	30·17	N.E.	68	57	76	60	57	·79	Overcast

Medical Diary for the ensuing Week.

Monday, September 26.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M., and on Tuesday, Wednesday, Friday, and Saturday at the same hour.
ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations daily at 10 A.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.
CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M.; Thursday, 2.30.
HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and each day in the week at the same hour.
UNIVERSITY COLLEGE HOSPITAL.—Ear and Throat Department, 9 A.M.; Thursday, 9 A.M.

Tuesday, September 27.

KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.; Fridays and Saturdays at the same hour.
GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at the same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.
ST. MARK'S HOSPITAL.—Operations, 2 P.M.
CANCER HOSPITAL, BROMPTON.—Operations, 2 P.M.; Saturday, 2 P.M.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 2.30 P.M.
ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 2.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M. Throat Department, Tuesdays and Fridays, 1.30 P.M. Electrotherapeutics, same day, 2 P.M.

Wednesday, September 28.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.
MIDDLESEX HOSPITAL.—Operations, 1.30 P.M.; Saturdays, 2 P.M. Obstetrical Operations, Thursdays, 2 P.M.
CHARING-CROSS HOSPITAL.—Operations, 3 P.M., and on Thursday and Friday at the same hour.
ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour.
LONDON HOSPITAL.—Operations, 2 P.M.; Thursday & Saturday, same hour.
ST. PETER'S HOSPITAL, COVENT-GARDEN.—Operations, 2 P.M.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations 2.30 P.M.
GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 1.30 P.M.; Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.
CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9.30 A.M. Surgical Visits on Wednesday and Saturday at 9.15 A.M.

Thursday, September 29.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. Surgical Consultations, Wednesday, 1.30 P.M. Ophthalmic Operations, Friday, 1.30 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Ear and Throat Department, 9 A.M.

Friday, September 30.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

Saturday, October 1.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; and Skin Department, 9.15 A.M.

Notes, Short Comments & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editors."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

We cannot undertake to return MSS. not used.

A HUMAN "SUBJECT" FOR CHOLERA EXPERIMENTS.

A LADY CORRESPONDENT writes to us that she believes that "M. Pasteur is practically at a standstill in his experiments with anti-choleraic vaccine; for though having proved its inoculation ensures immunity from the disease to animals that are open to choleraic infection, yet to conclusively prove its value as a safeguard to humanity against cholera it is necessary not only to vaccinate a human being with anti-choleraic vaccine, but subsequently to test its efficacy by administering a dose of the cholera poison itself." Having stated so much, our correspondent suggests that a voluntary subject is wanted upon whom to make the final experiment, and adds: "The cause of this letter is just to inform you that if I may be allowed I have a wish to offer myself as a voluntary subject for the required test, in the hope that thereby a means may be firmly established to obliterate a pestilence." We regret that we cannot accede to our correspondent's request that we should be parties to such an experiment, which would by no means determine the question. Moreover, the institution of such a class of experimentation is strongly to be deprecated.

F. B. (Queen's Gardens) is thanked for kindly furnishing us with a copy of the late Dr. Archibald Billing's pamphlet on the nature and treatment of cholera. Dr. Billing was a learned physician, and occupied a distinguished position as a professor and medical writer, and any observations of his merit attention; but we fear that the treatment he inculcated, on the assumption that cholera was a species of fever, will not be followed in the present day. The truth must be confessed that there is no drug or any combination of drugs known to medicine that can cure cholera.

W.—We do not publish lay opinions with reference to any drug. Our correspondent should accept the "authority" of his usual medical attendant on the subject.

L.R.C.P.E. (Downpatrick) should apply to the Home Secretary, marking the department concerned in the corner of the envelope.

Mr. James Gray.—We are glad to see that our recommendation has been adopted.

Mr. F. Laurence.—The communication has already appeared in the lay press.

FEES IN POLICE CASES.

To the Editors of THE LANCET.

SIRS,—In March last, during the strike riots here, I was called out by two women to attend a man in the custody of the police, who, in trying to escape, had got struck on the head and was rendered unconscious. I was with him for over two hours and then saw him conveyed to his own home and attended him for over a fortnight. At midnight on the same night the chief constable of the district and the inspector called and took me to a man who had his head cut open by a brick. I stitched up the wound and saw him next day, and he called at my surgery some days later when the wound was healed. The chief constable of the county and the chief constable of the district called on me during my surgery hours and learnt all I had to say about the accidents to both men. I was not called to the trial, but what I told the chief constable was quoted. In April I sent in a bill, addressed to the chief constable of the district, of 2½ guineas for my attendance, consultations, &c., but no notice whatever has been taken of it. Before sending in another bill this quarter I should like to inquire whether I am entitled to my fees, and if so, to what amount and to whom I should apply for them.—I am, Sirs, yours truly,

Sept. 19th, 1892. M.R.C.S.

QUESTIONABLE MEAT FOR SALE AT BIRKENHEAD.

WE cannot find room for the publication of the notes of the evidence in this case. It is unsatisfactory to find a magistrate accepting the evidence of butchers, including that of the owner of the beast in question, in preference to that of the inspector, of medical men, and of a veterinary surgeon. But it is a question for discussion in the local papers.

Hypnosis.—We are not prepared to advise the practice of hypnosis or to recommend the names of its practitioners. The subject is one of very great difficulty and much difference of opinion exists regarding it. As regards the mode of inducing hypnosis and the general phenomena of the state the fullest particulars will be found in such works as those of Moll, Bernheim, Forel, Wetterstrand, Liègeois &c. A cheap translation of Moll's work has been issued in the International Scientific Series and probably this would suffice for the needs of our correspondent.

Mr. Potter.—Technically, and even legally, the practitioner is entitled to his fee. But it is a matter for the discretion of the practitioner how far he will go in claiming it or any portion of it. He should, we think, either claim the whole or none.

Subscriber since 1866.—The claim should not be legally pressed. Notice should have been given of increased fee.

Mr. Philip W. G. Nunn is thanked for his report, which shall have our early attention.

S. W. Dublew should have repeated his query in his second communication.

WANTED A DIAGNOSIS.

To the Editors of THE LANCET.

SIRS,—As I am not at all clear about the diagnosis of the following case, which I treated as one of gall-stone, I should be thankful to know from some of my professional brethren how they would interpret the symptoms I am about to describe:—

On the 11th inst. I was called to J. W——, a discharged soldier, aged thirty-five, who complained of intense pain and tenderness in the lower sternal, epigastric, and right hypochondriac regions, with frequent vomiting of a light yellow fluid. I was informed that as the patient was going upstairs on the previous evening he was suddenly seized with a pain across the chest, especially over the heart, which "seemed ready to burst." This continued till 3 A.M., when he went to sleep. He awoke about 6 o'clock and immediately commenced to vomit. The pain had moved more to the right hypochondriac region, and ceased about midday. The vomiting, however, which was very distressing and profuse, continued till 9 at night and then stopped suddenly. The patient continued to improve, and was about in a few days. There was no jaundice. A peculiar feature in the case was that for about six days previously to the attack the patient had noticed that movements of his tongue, such as drinking, sucking, or spitting, were painful, although on examining the tongue there was no appearance of soreness. On the subsidence of the acute attack above described this soreness of the tongue was found to have quite gone. Some years ago, while stationed with his regiment at Hong-Kong, the patient tells me he had a severe attack of hepatitis.

I remain, Sirs, yours truly,

Sept. 20th, 1892. L.R.C.S.I.

THE CARRIAGE OF VACCINE LYMPH BY CARRIER-PIGEONS.

SURGEON-MAJOR STRŒBEL, at a recent meeting of the Académie de Médecine, showed the possibility of transmitting six small tubes of vaccine lymph over considerable distances by carrier pigeons.

Spes.—The relations described would be very liable to render the medical man open to the charge of "covering." They should not be entered into.

Conjoint.—We see no objection to adding to the titles the source from which they were derived, as suggested.

Microphone asks to be informed where he could purchase a microphone suitable for auscultation.

Mr. J. G. Campbell (Belfast).—A brief notice of the rarity might be interesting.

Brigade-Surgeon Renton (Eyemouth) is thanked for his communication.

HEALTH OF ROUMANIA.

To the Editors of THE LANCET.

SIRS,—The health of this port and of the Danbruga in general continues excellent. A few cases of diarrhœa occur amongst adults, attributable to indulgence in melons, grapes and other fruits. Infantile summer diarrhœa exists, but in a mild form and rarely fatal. In the Adenbrul daily paper of the 23rd inst. it is reported that cholera has appeared at Cernanti, a town on the Roumanian frontier near to Bucavina. There is no other news to report, beyond stating that up to the present there does not exist anything indicating an approach of the malady to this district.

I am, Sirs, yours truly,

Constanta, Kustendjie, Sept. 6th, 1892. A. IRWIN BOLTON, M.B.

BASHFULNESS AND ITS NEUROTIC RELATIONS.

THE quality of modesty has in all times commanded the respect of thoughtful and sincere persons. In it we recognise one of the most familiar marks of a genuine character and we should be very doubtful if, other things being equal, it has ever really stood in the way of its possessor's advantage. Where it has appeared to do so we may safely say that it has been represented by some spurious imitation, or, if present, has been associated with personal failings which ought really to bear the blame too lightly attributed to its operation. Of its imitators we may select one as an example—bashfulness. So closely do these two qualities approach one another at certain points that the distinction between them is almost lost sight of. Yet there exist essential points of difference. Both agree in avoiding prominence, but in the case of the former this is due to a humble estimate of personal capacity and an unselfish preference of others, and it is compatible with the free expenditure of effort when occasion demands this. With bashfulness it is different. Self-consciousness is here the commanding influence, and this is by no means a necessary counterpart of self-abasement. Want of acquaintance with existing social conditions is allowed to assume an exaggerated importance. There is a disinclination to abandon a resulting attitude of habitual reserve which even the claims of mutual duty which bind together members of the social whole are unable to overcome. We do not forget that a neurotic basis often underlies this inveterate shyness. The blush, the changing expression, and a variety of like indications clearly denote this. There is doubtless a mental hyperæsthesia which is congenital and therefore the less amenable to treatment. Even this, however, is but a functional condition and therefore not incurable. What is required for its relief is the steady exercise of a dominant control acting through nerve centres at the instance of the will. No good is done by closely contemplating the disorder, but the cure follows most surely when personal peculiarities are ignored, and when even identity is sunk in a sense of dutiful relationship with others. A habit of concentration upon work and the cultivation of free social intercourse constitute the most obvious aids of the will-power in this matter.

H. J.—It is certainly the duty of the medical man first called, on detecting the case, to notify, and, unless the first was acting distinctly as *locum tenens* for the second, it will be right for the second also to do so. It seems superfluous; but the Act says: "*Every* medical practitioner .... shall send to the medical officer of health," &c.

W. L. S. (Buxton) is thanked for the copy of the pamphlet by a late member of the Indian Medical Staff who was sent by Government and appointed Physician-in-Chief to the Cholera Hospital in Warsaw during the epidemic of that disease in 1830.

Medicus.—There would be no breach of professional etiquette in our correspondent intimating to his own patients on a card his change of address. It would simply be an act of courtesy and convenience.

"MIDWIVES' REGISTRATION BILL."

To the Editors of THE LANCET.

SIRS,—In reply to your correspondent, Mr. Ramsey, allow me to say there can be no objection to stating on the death certificate such a fact as "delivered by a midwife." I have always done so, and even in the case mentioned in my letter in your last issue (p. 698) in certifying it to the medical officer of health I did, and also added to the certificate "no doctor was engaged." Such information is practical and useful.

I am, Sirs, yours truly,

Sept. 17th, 1892. FREDERICK F. ALDERSON, M.D.

INCINERATION OF CHOLERA STOOLS.

A CORRESPONDENT wishes for information as to the probable minimum cost of an efficient apparatus for incinerating cholera and typhoid fever evacuations &c., in connexion with an infectious hospital.

Enquirer.—He breaks no law by using the title. He is already registrable and registered. The use of the title in question is a matter of taste. If our correspondent is satisfied with its source and character he will be justified in using it so long as he does not represent it as implying a British degree.

Mr. Alfred Ford.—Such an institution should appoint a qualified dispenser, because the law requires those who dispense medicines to be qualified, and the law is a proper one.

Mr. E. Clendon.—Such communications should reach us through a medical practitioner.

Mr. J. B. Chatterton should seek the information from his regular medical attendant.

ERRATUM.—In Dr. Alderson's letter on the subject of "Midwives and Abnormal Cases" (page 696 of our last issue), twenty-sixth line from the commencement, for the word "few" read *poor*.

COMMUNICATIONS not noticed in our present issue will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. Barcroft Anderson, London; Mr. J. Atkinson, London; Mr. Armstrong, Newcastle; Dr. Alderson, London; Mr. Alldridge, Southampton; Dr. R. L. Bowles; Messrs. Blondeau and Co., London; Messrs. Burroughs and Wellcome, London; Mr. Bloomfield, Chorlton; Florence Billing, London; Dr. Bannantyne, Bath; Messrs. Baillière, Tindall and Cox, London; Mr. Brickwell, Herts; Mr. Cooper, Derby; Mr. Cornish, Manchester; Mr. J. B. Chatterton, Gravesend; Messrs. Coxeter and Son, London; Mr. E. A. Clarke, Dukenfield; Messrs. Cassell and Co., London; Messrs. Condy and Mitchell, London; Messrs. Cook and Holding, Belgrave-square; Mr. Callender, Dumfries; Mr. W. H. Crosse, Norwich; Mr. Connor, Mass., U.S.A.; Mr. J. J. Clarke, Walthamstow; Mr. Dyer, Boston; Mr. Duncan, Natal; Dr. Duncan, Berlin; Mr. P. E. Davis, Liverpool; Mr. J. W. Dewar, London; Mr. Earle, Lowestoft; Mr. C. M. Fegen, Suffolk; Dr. J. Forsyth, Weymouth; Mr. Field, London; Dr. Garman, Eastbourne; Mr. J. Gray, London; Mr. H B Gardiner, London; Dr. James F. Goodhart, London; Mr. Gay, Putney; Dr Hicks, Hendon; Mr. J. Lawrence Hamilton, Brighton; Miss Hooper, London; Messrs. Hopkinson and Co., Nottingham; Messrs. Humphreys, Portsmouth; Mr. Wheatcroft Holmes, London; Professor Hollander, Halle; Mr. Heywood, Manchester; Dr. Hime, Bradford; Dr. A. Haig, London; Mr. Humphreys, London; Mr. Hornibrook, London; Mr. Henry James, Brighton; Dr. R. Kirk, Glasgow; Dr. Fletcher Little, London; Mr. R. Cowan Lees, Glasgow; Mr. Chas. Legg, Sussex; Surg. Lieut.-Col. E. Lawrie, Hyderabad; Mr. Lewis, Bainhill; Mr. Martin, Brighton; Mr. Max Müller, Germany; Mr. Mansell Moullin, London; Mr. Moxham, Bury St. Edmunds; Mr. Chas. A. Morton, Bristol; Messrs. Mitchell and Co., London; Dr. D. Mowat, London; Mr. J. D. Mason, Hull; Mr. J. McNamara, London; Dr. Murphy, Sunderland; Mr. T. Duncombe Mann, London; Mr. Shirley Murphy; Mr. James MacMunn, Crouch End; Mr. C. H. McIlraith, London; Dr. Nicholson, Edinburgh; Dr. Nunn, Bournemouth; Dr. O Neill, Belfast; Dr. E. Willmer Phillips, Southsea; Dr. Karl Roker, Wiesbaden; Brigade-Surgeon D. Renton, Eyemouth; Dr. D. T. Richards, Risca, Mon; Mr. Warren Richardson, Boston, Mass; Dr. Rhodes, Sheffield; Dr. J. Robertson, Edinburgh; Mr. Rose, London; Miss Richmond, Gourock, N.B.; Dr. Squire, London; Miss Storer, Birmingham; Messrs. Street and Co, London; Surg.-Lieutenant Seaton, Punjaub; Dr. Smartt, West Meath; Mr. Slocock, Ireland; Mr. Shearer, Glasgow; Dr. Christian Simpson, Edinburgh; Dr. W. L. Searle, Buxton; Surgeon-Major Swaine, India; Mr. Sargant, Leamington; Messrs. Smith, Elder and Co., London; Mr. Sewill, Redhill; Dr. Steele, Rome; Mr. Stocker, Forest Gate; Professor Schafer, London; Mr. Shepperson, Hampstead; Mr. Turney, London; Messrs. Thorp and Co., Glossop; Mr. Voss, Hamburg; Mr. Vickers, London; Mr. Wand, Leicester; Mr. Williams, St. David's; Mr. C. Williams, London; Messrs. Whitworth and Stuart, Manchester; Mr. Wylie, York; Mr. Williams, Preston; Miss C. J. Wood, London; Mr. Wilkes, London; Amicus; Alkaloid, London; A. M. F., London; 93, Camberwell-road, S.E.; Clayton Hospital, Wakefield; Cosmo, London; C. E G., London; Espérance, London; Globe Parcel Express, London; Hospital for Sick Children, Pendlebury; Immediate, London; Lumley's, London; Map, London; Orvieto, Brighton; Prudential Assurance Society; Royal College of Physicians, London; Rock, London; Scot, London; Secretary, Royal Infirmary, Manchester; Urbanus, London; Viator, London; W. B. O., Edinburgh; Z. X. R., London.

LETTERS, *each with enclosure*, are also acknowledged from—Mr. Bunting, Southsea; Mr. Birt, Wakefield; Mr. Bremner, Leicester; Mr. Benson, Pinner; Mr. Bronett, Grays; Mr. Barclay, Glasgow; Mr. Balmford, Morecambe; Mr. Boon, London; Mr. Battams, London; Dr. Boreham, Torquay; Mr. Bickerstaff, Essex; Mr. Cooper, Derby; Mr. Coates, Prestwich; Miss Cobb, Dolgelly; Mr. Cunningham, Dalston; Mr. Dunstan, Borough; Mr. Davis, London; Messrs. Down Bros., London; Mr. Deeping, Leicester; Mr. Ehrke, Great Malvern; Dr. Eaburet, Paris; Mr. Fisher, Norwich; Mr. Foale, Devon; Messrs. Fawcett and Co., Driffield; Mr. Fiske, Maidstone; Mr. Greig, Tayport, N.B.; Dr. Griffith, Manchester; Mr. Hunt, Biggleswade; Mr. Hemmans, Louth; Dr. Hale, Chesterfield; Mr. Heanen, Keady; Mr. Hughes, Kingsland; Mr. Heap, Liscard; Mr. Holmes, Derby; Mr. Hayward, Bristol; Miss Hankey, Much Hadham; Mr. Illingworth, Accrington; Mr. Jones, Southend-on-Sea; Mr. Joule, Stone; Dr. Kenealy, Watford; Mr. Kynaston, Liverpool; Mr. Keatinge, Cairo; Mr. Keys-Wells, Pershore; Mr. Lamb, Wolverhampton; Mr. Leech, Little Wenham; Mr. Lloyd, Treherbert; Mr. Lucas, Cambs; Mr. Lewis, Walsall; Hon. Mrs. Molyneux, Bournemouth; Mr. Madge, Teignmouth; Mr. Mallan, Hythe; Mr. Messenger, Altau; Mr. McCorville, Shrewsbury; Mr. Merry, Hemel Hempstead; Mrs. Matteson, Winchcombe; Mr. McNab, Portree; Mr. McWatters, Armagh; Mr. Norman, Buckfastleigh; Messrs. Negretti and Zambra, London; Mr. Nuttall, Leicester; Mr. Nicholson, Annan; Mr. O'Brien, London; Mrs. Garnett Orme, Skipton; Mr. O'Reilly, Highgate; Dr. Plummer, Durham; Messrs. Preston Bros., Huddersfield; Messrs. Richardson Bros. and Co., Liverpool; Mr. Rimmer, Buxton; Mr. Rhodes, Huddersfield; Mr. Roberts, Slough; Mr. Somerset, Newbury; Messrs. Smith and Co, Bow; Mr. Scott, Dublin; Mr. Scott, Carnarvon; Mr. Shorting, Broseley; Dr. Storey, Boston; Mr. Sharp, Gravesend; Mr. Thin, Edinburgh; Mr. Tyte, Minchinhampton; Mr. Teal, Halifax; Mr. Ure, Oldham Infirmary; Mr. Woods, York, Mr. Woodward, Colchester; Mr. Wanklyn, Bournemouth; Miss Wright, Brighton; Mr. Waters, London; Mr. Wylie, Middlesbrough; A. J., London; Ajax, Liverpool; Assistant, London; A. B, Dorset; A., London; Ashton, London; B. A. S., Liverpool; Bachelor, London; Beta, London; Class Rooms, Edinburgh; Celsus, London; Dunn, London; Devon and Exeter Hospital; David, London; E. A. T., London; Expectans, London; Ferrum, London; Fidelity, London; General Hospital, Birmingham; Genuine, London; Galen, London; Hollinbrook House, Manchester; Holden, Stoke Newington; Inspector of Poor, Orkney; J. E., London; K., Bolton; Local, London; M., Aberdeen; Midwifery, London; Medicus, London; Medicus, Margate; M.R.C.S.E., Bournemouth; Medicus, Mold; M.R.C.S., Birkenhead; Medicus, Sheffield; Medicus, Hounslow; Omega, London; Pelican House College; P., London; R, London; Secretary, Nottingham Borough Asylum; Storer, Birmingham; Selby, London; Secretary, Dundee Royal Asylum; Salis, London; Secretary, East London Hospital for Children; Spes, London; Sigma, London; Secretary, Bootle Borough Hospital; Secretary, Great Yarmouth Hospital; Surgeon, Narberth; T. B., London; Yorkshire College, Leeds; Y. X., London.

NEWSPAPERS.—*Leeds Mercury, Manchester Courier, Scottish Leader, Glasgow Herald, Sheffield Telegraph, Newcastle Chronicle, North British Mail, Birmingham Gazette, Bristol Times and Mirror, Liverpool Daily Post, Bristol Mercury, Yorkshire Post, Law Journal, Scotsman, Western Morning News, City Press Mark Lane Express, Cumberland Advertiser, Agricultural Gazette, Bradford Observer, Banffshire Journal, Hampshire Advertiser, Windsor and Eton Express, Surrey Advertiser, Hertfordshire Mercury, Weekly Free Press and Aberdeen Herald, Reading Mercury, Devon Evening Express, Mining Journal, Local Government Chronicle, West Middlesex Standard, Inverness Courier, Le Temps (Paris), Cape Argus, Times of India, Local Government Journal, Pioneer Mail, Guy's Hospital Gazette, Times, Democrat (New Orleans), Food, Drugs and Drink Journal, Norwich Mercury, Sunday Times, Cornish Telegraph, Auckland Chronicle, Lancashire Evening Express, Liverpool Courier*, &c., have been received.

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